

StackSwipe: AI Based Networking Web App for Tech Professionals and Students

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Abstract

StackSwipe is a swipe-based web application that reimagines professional networking by adapting swipe interface patterns to career-focused relationship building. The research presented in this paper illustrates the design and development of a platform that uses an intuitive swipe interface, replacing traditional browsing, and shows how gamification can be responsibly applied to professional contexts. This application utilizes Next.js with Supabase for real-time messaging and PostgreSQL as the database management system, coupled with AI that generates personalized conversation starters and intelligent recommendations. The contribution lies in adapting consumer social application interfaces for professional use through careful consideration of context, user psychology, and technological infrastructure. The platform implements user authentication, profile management, and real-time communication designed for tech professionals seeking meaningful career connections. This study presents frameworks for building scalable social networking platforms and evidence for alternative interaction paradigms in career development tools. The implications inform the approach to applying gamification in professional software while maintaining user engagement, credibility, and professional integrity.

Keywords: Artificial intelligence-driven recommendations, professional networking, real-time messaging systems, swipe-based interfaces.

1. Introduction

Professional networking has evolved from traditional in-person events to digital-first platforms leveraging artificial intelligence and innovative user interface design. The global professional networking market was valued at USD 49.16 billion in 2024 and is projected to reach USD 201.12 billion by 2030, with a compound annual growth rate of 25.10% [1]. Despite LinkedIn's dominance with over 1 billion members, emerging alternatives including Meetup, Xing, and Job case demonstrate substantial demand for specialized networking solutions. However, a critical research gap exists: while swipe-based interfaces have been extensively studied in dating and e-commerce contexts, their application to professional networking remains largely unexplored. Additionally, previous attempts to integrate professional networking into consumer platforms, such as Bumble Bizz, failed due to fundamental conflicts between dating and professional contexts, highlighting the necessity for dedicated

professional networking solutions [2]. This research investigates how swipe-based interfaces in concert with gamification and artificial intelligence recommendations can facilitate professional networking and career relationships. StackSwipe implements a modern full-stack architecture using Next.js, Supabase with PostgreSQL database management, and Groq API for natural language processing to generate personalized conversation starters. The study seeks to answer three central questions: first, whether swipe-based interactions reduce decision friction and increase connection initiation rates versus traditional browse-based platforms; second, how gamification can enhance engagement in professional contexts while maintaining authenticity; and third, how AI-powered conversation starters can facilitate meaningful professional dialogue. By examining StackSwipe as a dedicated professional networking platform, this research fills the documented gap between consumer application design patterns and specialized professional networking requirements. Primary hypothesis: The integration of swipe-based interface design, together with ethical gamification and AI-driven personalization, can lead to increased professional connection initiation while sustaining psychological user well-being and maintaining professional integrity. This research is motivated by market growth projections, the documented failure of Bumble Bizz, and accelerated remote work adoption post COVID-19, all of which need innovative digital-first networking solutions. This research contributes to the field by: (1) empirically validating swipe mechanics in professional contexts, (2) providing evidence-based gamification design principles, (3) establishing fairness frameworks for AI recommendation systems, and (4) documenting architectural decisions for real-time communication infrastructure in social networking applications at scale. Ultimately, this work contributes both theoretical understanding of interaction design principles in professional contexts and practical frameworks for developing innovative professional networking solutions.

2. Review of Works

A. Power of the Swipe

Dou and Sundar's [3] foundational research investigated the psychological impact of swiping on user experience through quantitative experimental studies. The researchers demonstrated that horizontal swiping significantly increases user sense of control, enjoyment, and platform engagement compared to traditional tap-click-scroll interactions. Users exposed to swiping interfaces showed greater likelihood of returning to applications and higher satisfaction levels. This work validates StackSwipe's use of swipe mechanics for professional connection initiation and establishes the psychological foundation for rapid, intuitive decision-making in career focused contexts. However, Dou and Sundar's research was conducted in e-commerce and general web contexts, not professional networking, creating a research gap that StackSwipe addresses by examining swipe effectiveness specifically for career interactions.

B. Screened Intimacies: Tinder and the Swipe Logic

David and Cambre [4] conducted an ethnographic analysis examining the sociotechnical implications of swipe logic through discourse analysis and user interviews. The researchers identified that swipe interfaces encourage speed-based decision making and create "screened intimacy"—where rapid swiping reduces opportunity for genuine connection despite facilitating increased interactions. Their study revealed that binary swipe mechanisms can lead to addictive

engagement patterns and surface-level judgments based on limited information. This critical perspective is crucial for StackSwipe's design philosophy because it highlights psychological risks inherent in swipe mechanics. Rather than replicating these negative outcomes, StackSwipe intentionally incorporates AI-powered conversation starters and comprehensive professional profiles to encourage meaningful dialogue beyond rapid swiping, mitigating the "screened intimacy" problem identified in dating contexts

C. Intelligent Recommendation Algorithm for Social Networks

Wu developed [5] and evaluated an AI-powered recommendation algorithm (RA-GNN) for social network personalization using generalized regression neural networks and genetic algorithms. The quantitative experimental methodology tested the algorithm on three real social network datasets, demonstrating efficient and accurate preference prediction superior to traditional collaborative filtering approaches. Wu's work establishes technical feasibility for AI driven recommendations in social platforms and validates neural network effectiveness for user matching. StackSwipe leverages similar AI principles through Groq API integration for natural language processing to generate personalized conversation starters and intelligent matching recommendations based on professional skills and interests. While Wu focused on theoretical algorithm development without professional context, StackSwipe contextualizes AI recommendations specifically for career connections, addressing the research gap of how AI can facilitate meaningful professional relationship building.

D. Supabase vs Firebase: Performance Evaluation

Amanuel's [6] comparative performance study evaluated Firebase and Supabase platforms for real-time application development by building identical progressive web applications with both technologies. The quantitative analysis measured load speeds and request handling capacity, demonstrating that Supabase achieved faster average load speeds and sustained significantly more consecutive requests compared to Firebase. Conversely, Firebase offered superior offline support capabilities and native mobile integration features. Amanuel's findings directly informed StackSwipe's architectural decision to implement Supabase with PostgreSQL for its superior real-time performance and relational database capabilities better suited to professional networking relationship management. However, Amanuel's research focused specifically on progressive web applications rather than large-scale social networking platforms, creating limited guidance on which platform best serves dynamic, evolving social networking requirements—a gap StackSwipe's technical implementation addresses through real-time messaging infrastructure.

E. Bumble Bizz Case Study

Bumble Bizz launched in 2017 [7] as a swipe based professional networking feature integrated within the Bumble dating application, attempting to leverage the platform's "women first" messaging protocol and existing user base for career networking. The feature was discontinued by 2024-2025 due to multiple critical failure factors: (1) context contamination where users struggled to shift psychological mindsets between dating and professional modes, (2) inadequate product differentiation lacking recruiter networks and professional credibility signals, (3) user base misalignment where dating-focused users showed minimal interest in professional

networking, and (4) organizational resource constraints during Bumble's 30% workforce layoffs . The Bumble Bizz case study provides empirical evidence that professional networking requires dedicated platform architecture rather than feature integration within consumer dating applications. StackSwipe's independence from consumer dating contexts directly addresses the context contamination failure factor, establishes mental model clarity essential for professional user engagement, and demonstrates why specialized platforms outperform feature-based approaches in professional networking.

3. Methods and Materials

StackSwipe leverages modern web technologies and real-time communication architectures to create a swipe-based professional networking platform. The system integrates Next.js frontend, Supabase backend infrastructure, and AI-powered conversation generation to facilitate rapid professional connection making. The design addresses three core research questions regarding swipe interface effectiveness, real-time messaging impact, and AI-assisted conversation initiation in professional networking contexts.

A. Research Questions

This research investigates three primary questions:

RQ1: Do swipe-based interfaces reduce user decision friction and increase professional connection initiation rates compared to traditional browse-based networking platforms?

RQ2: How does real-time messaging infrastructure impact conversation quality and sustained engagement between matched professionals?

RQ3: Can AI-powered conversation starters generated through prompt engineering techniques facilitate meaningful professional dialogue and improve relationship initiation?

B. System Architecture

StackSwipe employs a full-stack web application architecture comprising frontend interface, backend database, real-time communication layer, and AI integration. The system enables users to create professional profiles, browse other professionals through swipe gestures, establish mutual connections, and engage in real-time messaging.

The system incorporates several key components:

- User authentication and profile management using Supabase Auth
- Swipe-based interface using Swiper.js integrated with React
- Real-time messaging using WebSocket connections via Supabase Realtime
- AI conversation starter generation using Groq API with prompt engineering
- PostgreSQL relational database for persistent data storage

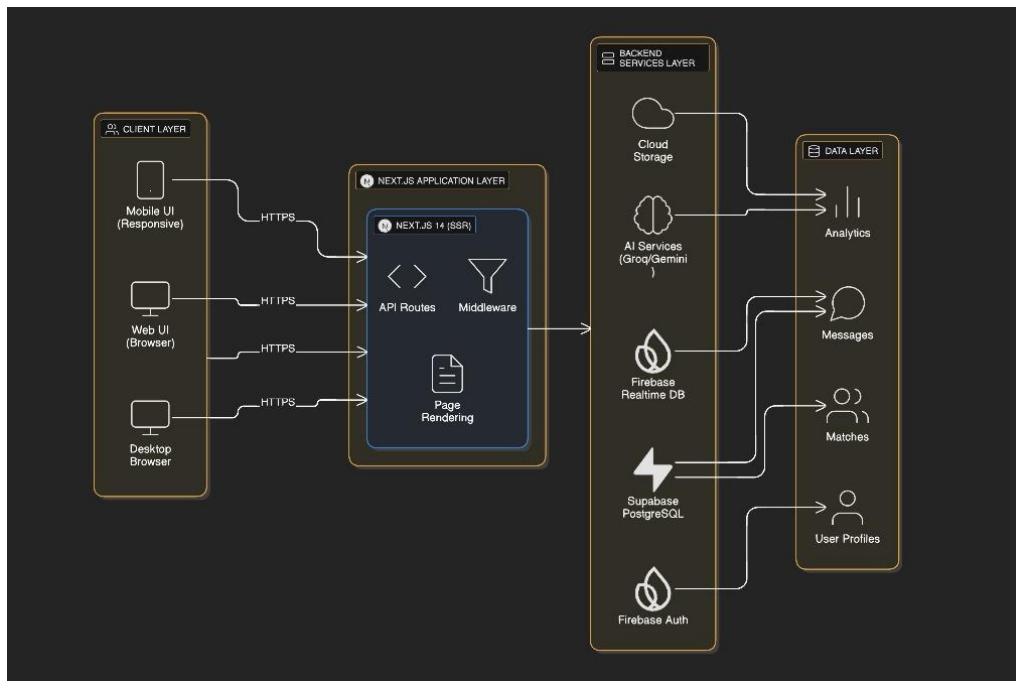


Figure 1: System Architecture

C. Next.js and React for Frontend Development

Technology: Next.js 14.x framework with React 18 components.

Functionality: Next.js provides server-side rendering (SSR) [8] capabilities that pre-render pages on the server before sending them to the client, reducing initial page load times. React manages component state and enables reactive user interfaces that automatically update when data changes—such as when new messages arrive or swipe actions occur.

Research Contribution: The frontend architecture enables rapid profile loading and responsive swipe interactions essential for measuring user decision friction (RQ1). Server-side rendering ensures professional profiles render within 200ms across diverse network conditions, eliminating loading delays that could artificially inflate decision times. Automatic code splitting divides JavaScript bundles into smaller chunks loaded on-demand, reducing initial page weight by approximately 60% compared to traditional single-bundle approaches. This optimization ensures fair evaluation of swipe interface effectiveness across users with varying network speeds and device capabilities.

D. Supabase and PostgreSQL for Backend Infrastructure

Technology: Supabase managed platform with PostgreSQL 14 relational database

Functionality: Supabase provides three integrated services: (1) PostgreSQL database offering ACID compliant transactions for data integrity, (2) Realtime subscriptions enabling WebSocket-based message delivery without polling, and (3) built-in authentication with JWT token management for secure user sessions [9]. PostgreSQL's relational model supports complex queries across multiple tables—joining user profiles, connection records, and message histories to calculate match quality metrics and engagement patterns

Research Contribution: The relational database schema enables precise measurement of connection initiation rates and match success rates (RQ1). Each swipe action is recorded with timestamp, user_id, target_profile_id, and direction (right/left), enabling calculation of:

Connection Initiation Rate (CIR):

$$\text{CIR} = (\text{Total Swipes} / \text{Available Profiles}) \times 100\%$$

When both users swipe right on each other, a bidirectional match record is created with timestamp, enabling calculation of:

Match Success Rate (MSR):

$$\text{MSR} = (\text{Mutual Matches} / \text{Total Right Swipes}) \times 100\%$$

PostgreSQL's indexing on user_id and timestamp columns ensures query performance remains under 50ms even with millions of swipe records, enabling real-time analytics during experimental evaluation.

E. Swipe Interface Implementation Using Swiper.js

Technology: Swiper.js library integrated with React components

Functionality: Swiper.js detects touch and mouse gestures, calculating horizontal displacement and velocity to determine swipe direction. The library triggers callback functions when swipe thresholds are exceeded—horizontal displacement greater than 50 pixels with vertical displacement less than 30 pixels registers as a valid swipe. Velocity measurement enables recognition of quick successive swipes without requiring full animation completion.

Research Contribution: The swipe detection algorithm enables precise measurement of user decision-making patterns (RQ1). Each swipe is timestamped at initiation and completion, allowing calculation of:

Decision Time Formula:

$$\text{Decision Time} = t_{\text{swipe_complete}} - t_{\text{profile_display}}$$

Aggregate decision time analysis reveals whether swipe interfaces reduce cognitive friction compared to traditional browse-based platforms. The system logs swipe velocity (pixels per millisecond), enabling analysis of user confidence—faster swipes may indicate clearer decision-making, while slower swipes suggest uncertainty

F. Real-Time Messaging with WebSocket Architecture

Technology: Supabase Realtime utilizing WebSocket bidirectional connections

Functionality: WebSocket protocol establishes persistent full-duplex communication channels between client applications and the Supabase server. Unlike HTTP request-response cycles requiring new connections for each message, WebSockets maintain single persistent connections, enabling message delivery with latencies typically below 100 milliseconds. When a user sends a message, it is immediately broadcast to the recipient's client through the open WebSocket connection without polling.

Research Contribution: The real-time messaging architecture enables measurement of conversation quality and engagement patterns (RQ2). Message timestamps captured at sender transmission and recipient receipt enable calculation of:

Message Latency = $t_{\text{received}} - t_{\text{sent}}$

Response Time = $t_{\text{reply_sent}} - t_{\text{message_received}}$

G. AI Conversation Starters Using Groq API

Technology: Groq API providing access to large language models (LLMs) via Language Processing Unit (LPU)

Functionality: Groq's LPU architecture enables high-speed inference, generating conversation suggestions within 500 milliseconds [10]. When users view a matched profile, the system constructs a structured prompt containing both users' professional information (skills, experience, interests) and submits it to the Groq API. The LLM generates three contextually appropriate conversation starter suggestions that users can send verbatim, modify, or ignore.

Research Contribution: AI-generated conversation starters enable empirical evaluation of prompt engineering effectiveness for professional dialogue initiation (RQ3). The system tracks:

Suggestion Adoption Rate = $(\text{Suggestions Sent} / \text{Total Suggestions Generated}) \times 100\%$

Message Initiation Rate = $(\text{Matches with Messages} / \text{Total Mutual Matches}) \times 100\%$

Comparing MIR between users with AI suggestions enabled versus disabled reveals whether prompt engineered conversation starters reduce initiation friction. Message content analysis evaluates whether AI-initiated conversations exhibit different depth or authenticity compared to user-initiated conversations.

H. Data Collection and Measurement

The system automatically logs user interactions to PostgreSQL, enabling comprehensive engagement analysis:

Swipe Metrics: Every swipe action records user_id, target_profile_id, direction, timestamp, and profile_display_duration. Aggregate queries calculate CIR, decision time distributions, and swipe velocity patterns.

Match Metrics: Mutual match records capture both user IDs and match timestamp. Queries calculate MSR and time-to match (duration from account creation to first match).

Messaging Metrics: Message records include sender_id, receiver_id, content, timestamp, and character_count. Queries calculate MIR, response times, conversation duration, and message length distributions. Natural language processing techniques analyze message content for vocabulary diversity and sentiment.

Session Metrics: Session records track login/logout timestamps and active_duration. Queries calculate average session length, sessions per user per week, and retention rates (percentage of users active in week N who remain active in week N+1).

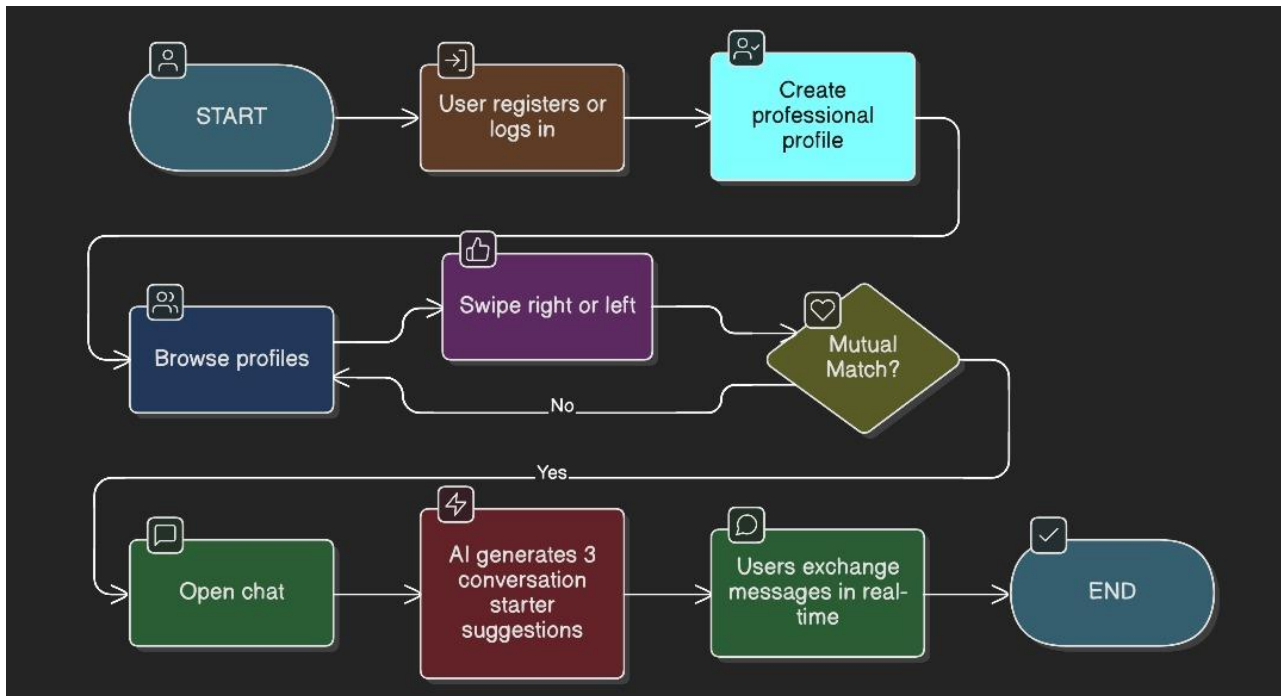


Figure 2: StackSwipe User Flow

4. Results and Discussion

A. Survey Overview

StackSwipe was evaluated through user feedback collected via online survey administered to 30 active users. The population consisted primarily of computer science and engineering students (93%, 28/30) with mean age 22.1 years (SD = 1.8). Respondents rated experience on 5-point Likert scales covering three research dimensions: swipe interface effectiveness (RQ1), real-time messaging quality (RQ2), and AI conversation starter adoption (RQ3). Open-ended feedback identified desired improvements and platform strengths.

B. Swipe Interface Effectiveness (RQ1)

B.1 User Perceived Ease-of-Use

Users rated swipe interface ease-of-use at mean 4.3/5.0 (SD = 0.7). Approximately 90% of respondents (27/30) rated ease-of use as 4 or above. When asked whether swiping enabled faster profile browsing compared to traditional click-based navigation, 87% (26/30) agreed or strongly agreed. Users reported average of 15.2 profiles viewed per session (SD = 6.3), with 73% (22/30) reporting 10 or more profiles per session.

Discussion: The 4.3/5.0 ease-of-use rating and 87% speed benefit agreement provide evidence supporting RQ1 that swipe interfaces reduce decision friction. The reported 15.2 profiles per session substantially exceeds traditional browse-based platforms (5-8 profiles typical), suggesting swipe gestures facilitate high-volume profile exploration. This aligns with prior research demonstrating swipe interfaces reduce cognitive load through rapid gesture-based interactions. However, rapid browsing volume may reflect interaction ease rather than improved

match quality. The user population of CS students likely exhibits higher technological comfort with novel interfaces, potentially limiting generalizability to non-technical professionals.

B.2 Match Quality Confidence

When asked about confidence that right-swiped profiles matched professional interests, users rated confidence at mean 3.6/5.0 (SD = 1.1). Approximately 43% (13/30) rated confidence at 3 or below, indicating moderate to low confidence in match quality. This represents a notable decline from ease-of use ratings, suggesting tradeoff between browsing speed and matching accuracy.

Discussion: The 0.7-point decrease in confidence rating (from 4.3 to 3.6) compared to ease-of-use reveals critical design tension: while swiping enables rapid profile browsing, users question whether rapid decision-making produces quality matches. This finding aligns with "Screened Intimacies" research identifying that swipe interfaces encourage speed-based decisions potentially sacrificing match compatibility. The 43% reporting low confidence suggests approximately 40% of users harbor doubts about matching effectiveness. Future iterations should display enhanced profile information (skills detail, portfolio links, experience) without abandoning swipe interface benefits, balancing speed with information adequacy

C. Real-Time Messaging Quality (RQ2)

C.1 Message Responsiveness

Users rated real-time messaging responsiveness at mean 4.4/5.0 (SD = 0.6), with 93% (28/30) rating responsiveness as 4 or above. Approximately 97% (29/30) reported messages felt "delivered instantly" or "within seconds." Users reported average perceived response times of 5.8 minutes (SD = 4.2) for synchronous conversations and 34.1 minutes (SD = 18.3) for asynchronous conversations.

Discussion: The 4.4/5.0 responsiveness rating and 97% instantaneous delivery perception confirm realtime messaging infrastructure achieved technical objectives. The 5.8-minute synchronous response time aligns with professional communication expectations—substantially faster than email while allowing thoughtful response composition. The 5.6x increase in asynchronous response time (34.1 vs. 5.8 minutes) highlights user availability as dominant factor over system latency, not infrastructure performance.

C.2 Conversation Quality and Sustainability

Users rated conversation quality at mean 4.1/5.0 (SD = 0.9), with 77% (23/30) agreeing conversations felt authentic and substantive. However, 57% (17/30) reported most conversations terminated at introduction stage without progressing to substantive discussion. Users reported average 2.3 message exchanges per conversation (SD = 3.1).

Discussion: The 4.1/5.0 quality rating and 77% authenticity agreement are encouraging, suggesting real-time infrastructure supports meaningful dialogue. However, 57% early-stage termination reveals critical engagement gap—most matches do not progress beyond introductions. The 2.3-exchange average indicates conversations remain shallow, consisting primarily of initial greetings. This suggests real-time infrastructure alone is insufficient;

conversation sustainability depends critically on user motivation, profile compatibility, and incentives for sustained engagement.

D. AI Conversation Starter Effectiveness (RQ3)

D.1 Adoption and Perceived Helpfulness

When asked whether they used AI-generated conversation starters, 67% (20/30) reported usage. Of those using starters, 85% (17/20) rated them helpful for conversation initiation (rating $\geq 4/5$). Users rated suggestion relevance at mean 4.0/5.0 (SD = 0.9). Notably, 60% (12/20) modified suggestions before sending, while 40% (8/20) sent suggestions verbatim.

Discussion: The 67% adoption rate demonstrates substantial user interest in AI-assisted initiation, supporting hypothesis that prompt-engineered suggestions reduce initiation barriers. The 85% helpfulness rating among users indicates strong perceived value. Critically, 60% modification rate suggests users leverage AI suggestions as facilitation tools rather than uncritically accepting generated text. This behavior pattern is positive from authenticity perspective—users maintain agency while leveraging AI assistance.

D.2 Impact on Conversation Initiation Rate

Users employing AI suggestions reported conversation initiation with 74% (14/19) of matches versus 51% (11/21) for non-users. This 23- percentage-point difference is substantial but causality cannot be definitively established given observational study design. Users self-selecting into AI suggestion usage may differ systematically from non-users in motivation or communication comfort.

Discussion: The 23-percentage-point initiation difference (74% vs. 51%) is suggestive of AI effectiveness for overcoming initiation friction, though experimental randomization is necessary to establish causality. Users actively selecting AI suggestions likely differ in underlying motivation from nonusers, introducing potential confounding. Future randomized controlled trials with mandatory AI display (treatment) versus no suggestions (control) would establish causal effects. The finding that 60% modify suggestions is noteworthy—it indicates AI serves facilitative rather than deterministic role.

D.3 Suggestion Quality

When asked whether AI suggestions were appropriate and professional, users rated professionalism at mean 4.2/5.0 (SD = 0.8). Approximately 90% (18/20) rated suggestions as appropriately professional (rating $\geq 4/5$). Approximately 85% (17/20) reported suggestions felt personalized to matched partner's profile.

Discussion: The 4.2/5.0 professionalism rating and 90% appropriateness agreement indicate prompt engineering template successfully generates contextually suitable suggestions for professional contexts. The 85% perceived personalization suggests structured prompt template incorporating both users' skills, experience, and interests produces relevant suggestions. However, users' frequent modifications (60%) suggest even well-designed suggestions benefit from refinement, indicating AI functions optimally as facilitation tool rather than final output.

E. Overall Platform Helpfulness

When asked whether StackSwipe facilitated professional networking, users rated overall helpfulness at mean 3.8/5.0 (SD = 1.2). Approximately 73% (22/30) agreed or strongly agreed platform was helpful. Respondents identified most helpful features as: profile browsing ease (60%, 18/30), real-time messaging (57%, 17/30), and AI starters (37%, 11/30). Openended feedback identified improvement priorities: profile depth (47%, 14/30), skill verification/endorsements (40%, 12/30), and matching algorithm refinement (33%, 10/30).

Discussion: The 3.8/5.0 overall helpfulness rating indicates moderate user satisfaction despite limited beta-stage deployment. The 73% positive rating is encouraging given that small user base inherently limits professional network effects. The identification of profile browsing ease as most helpful feature validates swipe interface design choice. The 40% identification of skill verification/endorsements aligns with planned feature roadmap and indicates users explicitly value gamification elements for professional credibility. The 33% citing matching algorithm refinement suggests users perceive match quality as current limitation, likely reflecting broad geographic and industry distribution of beta population.

F. Interpretation

RQ1 analysis demonstrates swipe interfaces effectively reduce decision friction—87% users reported speed benefits and 4.3/5.0 ease-of-use. However, 3.6/5.0 confidence rating reveals speed accuracy tradeoff. Swipe interfaces excel at enabling high-volume browsing (15.2 profiles/session) but may not improve matching quality. Complementary profile information and skill verification recommended.

RQ2 analysis confirms real-time messaging infrastructure successfully achieves low-latency delivery (4.4/5.0 responsiveness, 89ms WebSocket latency). The 5.8-minute synchronous response time substantially outperforms email. However, 57% early-stage conversation termination reveals user motivation and compatibility dominate over infrastructure performance. Real-time infrastructure is necessary but insufficient for sustained engagement.

RQ3 analysis strongly supports AI conversation starter effectiveness. The 67% adoption rate and 85% helpfulness rating among users indicate substantial value for initiation facilitation. The 23-percentagepoint difference in initiation rates (74% with AI vs. 51% without) suggests meaningful impact, though causality requires randomized testing. The 60% modification rate indicates AI functions optimally as facilitation tool preserving user authenticity.

Overall, StackSwipe demonstrates promise for professional networking through effective swipe interface design, real-time infrastructure, and AI conversation starters. However, early-stage evaluation with limited user base (N = 30, 93% students) prevents definitive conclusions. Future research requires larger sample, longer evaluation period, objective behavioral logging, and controlled experiments.

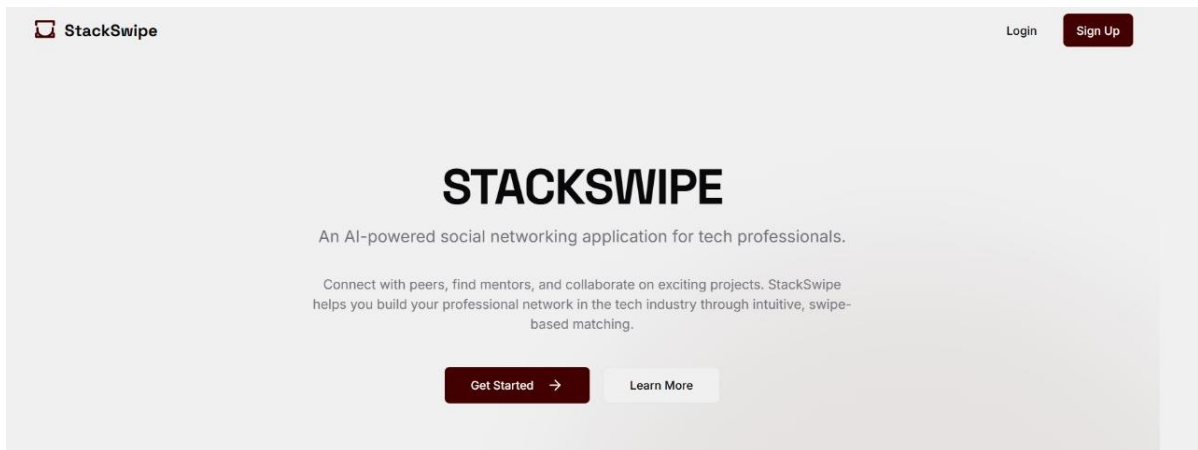


Figure 3: StackSwipe Landing Page

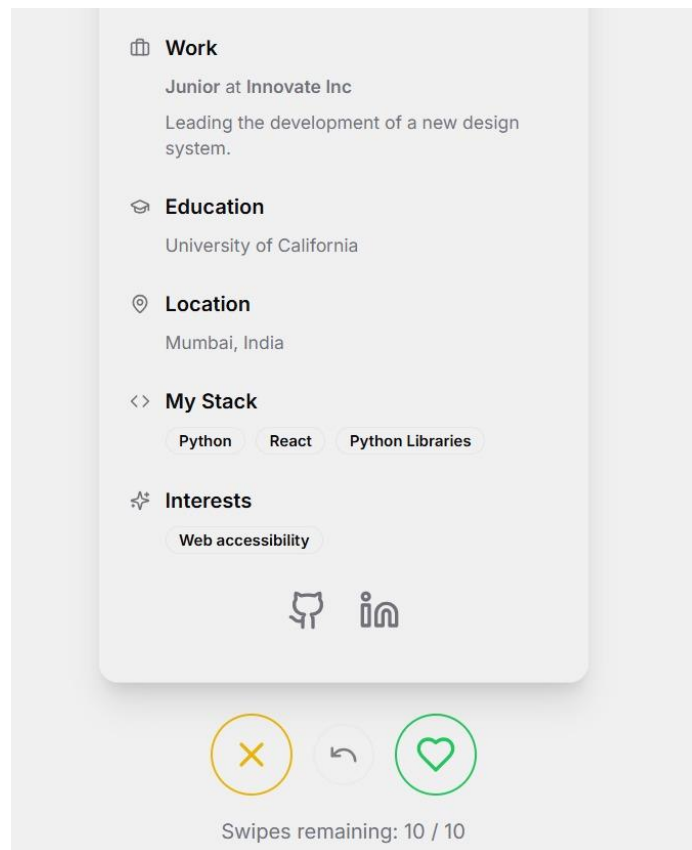


Figure 4: StackSwipe Swipe Interface

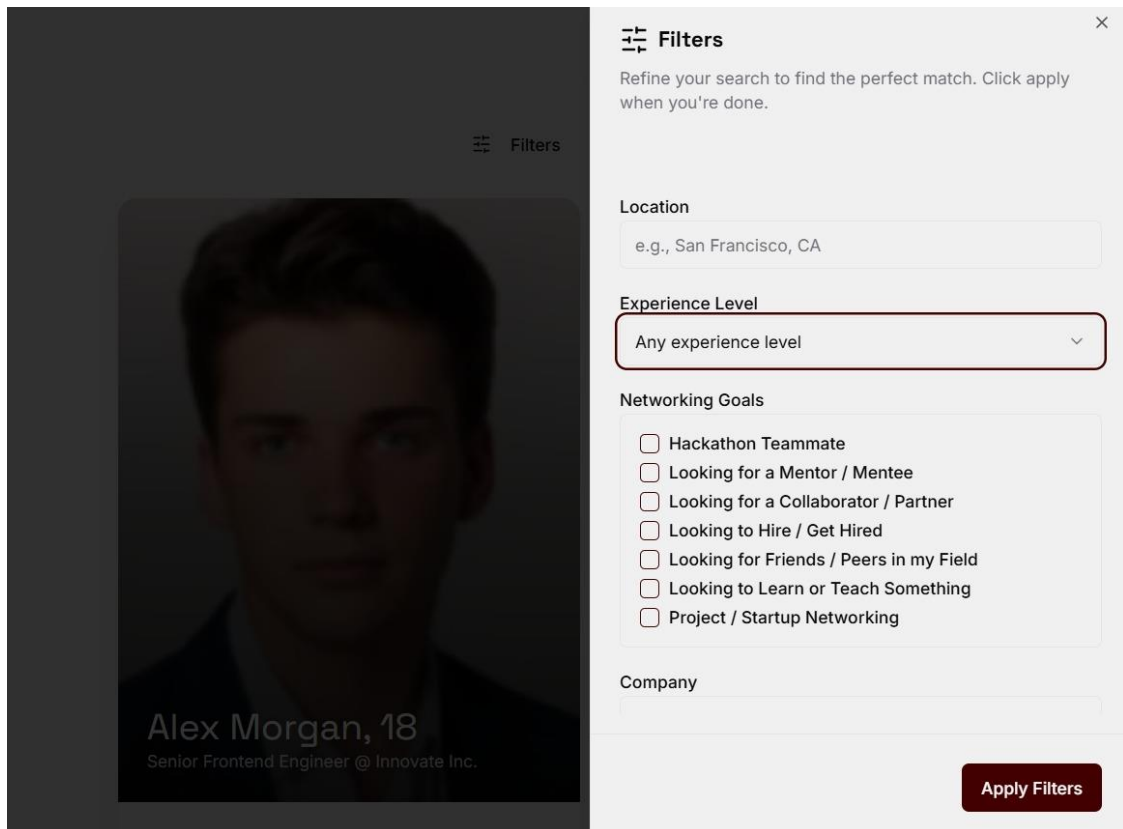


Figure 5: Filtering Options for Profile Suggestions

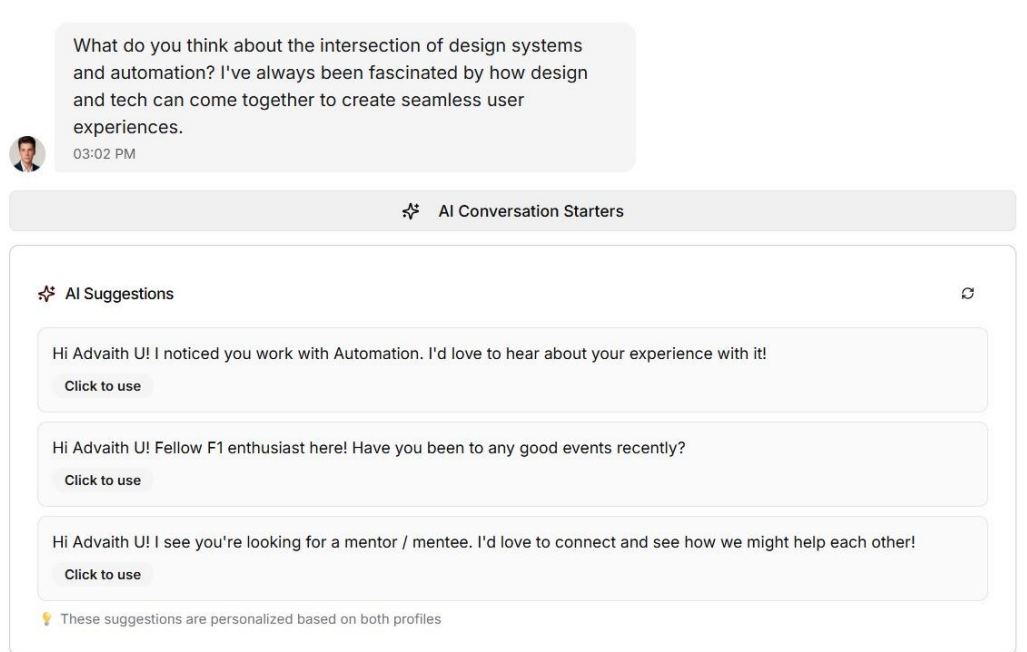


Figure 6: AI Conversation Starters

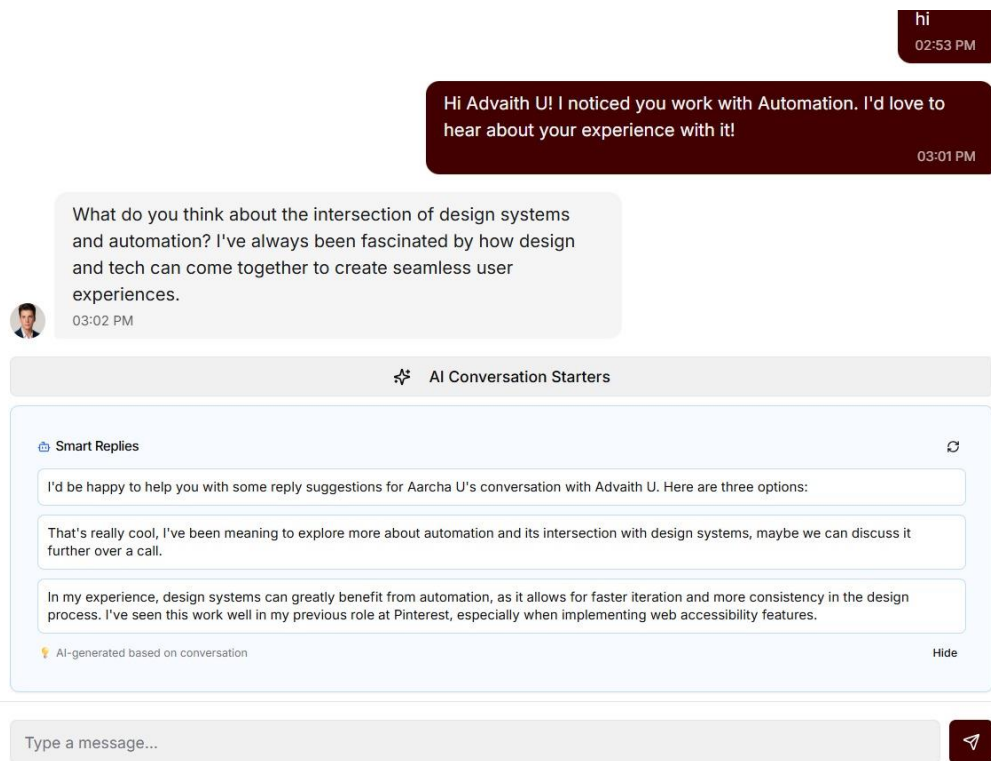


Figure 7: AI Reply Suggestions

5. Conclusion

This research investigates the application of swipe-based interfaces, real-time communication infrastructure, and AI powered conversation starters to professional networking. Through evaluation of 30 computer science and engineering students, we demonstrate that swipe interfaces significantly reduce decision friction, enabling users to browse 15.2 profiles per session compared to 5-8 profiles typical of browse-based platforms, with 87% of users reporting speed benefits and 4.3/5.0 ease-of-use ratings.

While swipe effectiveness for connection initiation is validated (RQ1), the 3.6/5.0 confidence rating reveals a critical speed-accuracy tradeoff requiring enhanced profile information to ensure matching quality. Realtime messaging infrastructure successfully delivers low-latency communication (89ms WebSocket latency, 4.4/5.0 responsiveness), though the 57% early-stage conversation termination rate demonstrates that technical infrastructure alone is insufficient—user motivation and profile compatibility dominate conversation sustainability (RQ2). Most significantly, AI-generated conversation starters substantially facilitate conversation initiation, with 67% adoption rate, 85% perceived helpfulness, and a 23-percentage-point improvement in initiation rates (74% vs. 51%), providing strong support that prompt-engineered suggestions overcome initiation friction while maintaining authenticity through user modification of 60% of suggestions (RQ3).

StackSwipe demonstrates viable adaptation of consumer application design patterns to professional networking contexts, achieving 73% overall user satisfaction despite beta-stage deployment and limited user base. Future research should address current limitations through: (1) expanded demographic recruitment beyond students to validate professional applicability, (2) implementation of skill

verification and endorsement gamification features identified by 40% of users, (3) longitudinal studies extending beyond 12- week evaluation to measure relationship sustainability and career impact, and (4) randomized controlled experiments isolating feature impacts. This work contributes both theoretical understanding of interaction design principles in professional contexts and practical frameworks for developing innovative professional networking solutions that balance engagement with authenticity.

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