

Fawwaz Firdaus

fawwaz@asu.edu | fawwazfirdaus.com | linkedin.com/in/fawwazfirdaus | github.com/fawwazfirdaus

EDUCATION

Arizona State University

Tempe, AZ

Bachelor of Science in Computer Science

Expected May 2025

Relevant Coursework: Foundation of Machine Learning, Data Structures and Algorithms, iOS App Development, Theoretical Computer Science, Operating System, Linear Algebra, Probability and Statistics

TECHNICAL SKILLS

Languages: Python, Swift, TypeScript, JavaScript, Go, Java, Objective-C, C++, C, C#, SQL, HTML/CSS

Developer Tools: Git, Xcode, Docker, Figma, Linux, Tableau, MySQL, Firebase, AWS, Google Cloud Platform, Jira

Frameworks: SwiftUI, UIKit, React Native, Flutter, ReactJS, Next.js, Node.js, NestJS, PostgreSQL, Flask

Libraries: Pandas, NumPy, Matplotlib, MediaPipe, OpenCV, Tensorflow, Keras, PyTorch, Scikit-learn, Statsmodels

WORK EXPERIENCE

Founding Engineer | *SwiftUI, TypeScript, Next.js, Node.js, PostgreSQL, Git, Jira* September 2023 – Present
Unius Tempe, AZ

- Spearhead the development of an iOS app for student housing subleasing, leveraging MVVM architecture for scalability and achieving 500+ downloads within the first few months
- Design and implement 30+ RESTful APIs using Node.js, NestJS, PostgreSQL, and JWT authentication, ensuring robust and scalable backend operations
- Lead the development of the web version of the platform from scratch using Next.js and TypeScript to expand accessibility beyond iOS

Software Engineer Intern | *SwiftUI, SwiftData, LLM, JavaScript, Git* September 2024 – November 2024
Empath Tempe, AZ

- Implemented a deep linking mechanism that reduced user navigation time by 60%, enabling direct access to journaling, mood tracking, and other app features
- Developed an iOS widget enabling users to log moods and view insights directly, reducing friction and cutting task completion time by 80% compared to navigating through the app
- Enhanced the journaling system by implementing local data storage with SwiftData and leveraging LLM for actionable insights, enabling users to edit previous entries and improving overall functionality

Software Engineer | *SwiftUI, UIKit, React Native, Firebase, Figma, Git* June 2023 – September 2024
Arizona State University Tempe, AZ

- Served as Technical Lead for two development teams, leading the creation of two iOS apps while providing mentorship and architectural guidance
- Collaborated to develop a cross-platform (iOS and Android) mobile app, enhancing accessibility to Circle the City's mobile healthcare services for homeless populations
- Architected and implemented critical app features, including geolocation services and back-end integration, resulting in improved user navigation and streamlined data management

PROJECTS

ReFind | *Python, LLM, RAG, Vector Database* December 2024 – Present

- Developed an AI-powered academic reference management system to help researchers quickly understand prerequisite knowledge from cited papers
- Integrated Retrieval-Augmented Generation (RAG) to enable intelligent querying, allowing users to interact with papers and citations through natural language

Live Emergency Response System | *Python, PyTorch, Pandas, NumPy, Keras* February 2023 – May 2023

- Collaborated with a team of 4 students and won first place in the hackathon, receiving a \$10,000 prize
- Trained a Machine Learning model to detect firearms with Convolutional Neural Network (CNN) method, achieving an average score of 0.83 in the F1 accuracy test

Shelter App | *Swift, UIKit, Core Data, Figma, Git* January 2023 – April 2023

- Developed an iOS app to facilitate access to mental healthcare and support groups for the homeless populations
- Integrated a mental health quiz and managed data with Core Data for personalized care