Ali Haroon

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EDUCATION

University of Colorado Boulder — Boulder, CO
Bachelor of Science in Computer Science, Biochemistry — *Aug. 2022 – May 2026*
GPA: 3.75
Relevant Coursework: Algorithms, Data Structures, Computer Systems, Linear Algebra, Database Systems, Numerical Computation, Data Science and Statistics, Principles of Programming Languages, Software Development and Tools, Computer Graphics

EXPERIENCE

Maxar Intelligence — Present
Software Development Intern — *Westminster, CO*
- Developed and refactored **75+** automated *end-to-end integration tests* in **Python**, **Java**, and **C++**, boosting overall data-flow **code-coverage from 52% to 90%** across initial mission-critical ground-system service tests.
- Embedded the test suite into containerized **CI/CD pipelines** using Docker and Github actions, cutting average build-and-test latency by **42%** and enabling **1.3x** faster promotion from staging to production.
- Instrumented real-time telemetry collectors that track throughput, error rates, and latency for **distributed data pipelines** to reduce **mean-time-to-detect (MTTD)** integration failures
- Collaborated with **cross-functional SRE and backend** teams to redesign validation schemas and **RESTful API** mocks in order to eliminate flaky tests and drop production defect escape rates.

ReportsNow — May 2024 – July 2024
Software Product Development & Management Intern — *Greenwood Village, CO*
- Developed and managed a comprehensive full-stack dashboard for the DAS Direct service, used by **1000+** JD Edwards users, leveraging program management practices to ensure timely milestones and deliverables through Jira tickets
- Utilized **C#**, **Razor**, and **MVC** with **SQLite** to enhance user interaction, data visualization, and cloud infrastructure.
- Implemented **ASP.NET 8** framework with **Azure** cloud services and DevOps to streamline dashboard functionality, ensuring robust security practices and a seamless user experience while satisfying customer needs with a robust front-end
- Collaborated in an Agile environment using **SCRUM** methodologies to design and implement enhancements.

Kappa Theta Pi Professional Technology Fraternity — April 2023 – Present
President (May 2024 - December 2024), Co-Founder, VP of Membership (August 2023 - May 2024) — *Boulder, CO*
- Founded a non-profit technical fraternity chapter focused on professional growth in technology and strategic projects, emphasizing program leadership and interpersonal skills.
- Expanded organizational size by **150%**, while securing partnerships with industry-leading companies to foster cross-functional networking and security-oriented educational opportunities for members.
- Led the KTP Member Portal Development with a data-driven mindset, delivering a cross-platform solution featuring an intuitive user interface and identity and access management best practices for **70+** members using HTML/JavaScript/CSS

Alpha Kappa Psi Professional Business Fraternity — March 2023 – Present
IT Director (December 2023 - Present), Member (March 2023 - Present) — *Boulder, CO*
- Created and managed a member portal using Excel and a supporting web application, boosting operational efficiency for over **125** fraternity brothers.
- Managed the organization's Slack and website, driving increased sponsor engagement and improved third-party risk management related to digital tools and external integrations.
- Founded and led the IT committee, orchestrating tech projects to enhance the fraternity's digital capabilities and efficiency.

PROJECTS

PocketStudy | *Swift, SwiftUI, Combine, CoreData, XCTest* — Apr 2025 - Present
- Engineered a 100% offline-first flash-card iOS app with **spaced-repetition** scheduling, boosting recall accuracy by **30%** across **2000** practice reviews.
- Optimized **CoreData+CloudKit** sync to keep under 200ms CRUD latency for 1000-card bursts on both LTE and Wi-Fi simulators.
- Authored **120+** unit& UI tests (97% coverage) in **XCTest/XCUITest**; zero crashes over **500** CI simulator runs on iOS16-17.

BlackjackVRTrainer | *Unity, C#, XRInteractionToolkit, Python, GitHubActions* — June 2025 - Present
- Constructed an immersive VR blackjack table that sustains **90FPS** on MetaQuest2 simulator, achieving sub-**8ms** frame times with hand-gesture betting and card manipulation frontend
- Implemented an adaptive **card-counting coach** overlay; pilot users (n=5) raised counting accuracy from **62%→94%** after two 1-hour gaming sessions.
- Generated **100000** simulated hands via Python MonteCarlo scripts to fine-tune strategy tables, trimming average house edge from 0.5% to **0.1%** in the hardest speed difficulty.

TECHNICAL SKILLS

Languages: Swift, Python, C++, C#, Java SQL (MySQL, Postgres, SQL Server), JavaScript, Typescript, Go, HTML/CSS
Frameworks : SwiftUI, Combine, UIKit, Unity XR Toolkit, React, Node.js, ASP.NET Core MVC, Razor
Developer Tools & Platforms: Xcode, Git, Docker, VS Code, Visual Studio, PyCharm, Jupyter Notebooks, Jira, AWS, Azure,
Libraries: pandas, NumPy, Matplotlib, SQLite