Ayush Koul

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EDUCATION

San Jose State University (SJSU)   San Jose, CA
Masters's in Computer Science   *August 2023 - May 2025*
- Relevant Courses: Topics in Machine Learning, Server-Side Web Programming

Graphic Era University   Dehradun, India
Bachelor's in Computer Science (GPA: 3.8 / 4.0)   *August 2018 - June 2022*
- Relevant Courses: Design and Analysis of Algorithms, Data Structures in C, Cloud Computing

TECHNICAL SKILLS

Programming Languages	C++, Python, C#, Java, JavaScript/TypeScript, SQL
Frameworks/Tools	React, Next.js, Node, GraphQL, Flask, .Net, Git, Docker
Databases	MongoDB, MySQL, PostgreSQL, Firebase
Cloud Platforms	Azure, AWS (EC2/S3), Google Cloud
Operating Systems	Linux, Unix, Windows, iOS, Android
Certifications	Azure Fundamentals (AZ-900), Azure Data Fundamentals (DP-900)

WORK EXPERIENCE

Samsung Research   Bangalore, India
Software Engineer   *August 2022 - July 2023*
- Programmed an XR Input Simulation tool in Unity for device-agnostic testing, decreasing development time by 80% and expediting project delivery
- Developed a Unity package with 25+ reusable UI components and development tools for XR developers
- Architected a scalable native Android camera service using Google's Camera2 API and HAL (Java, C++) with multi-threaded client requests and shared memory for a 65% increase in system performance
- Re-engineered the camera frame synchronization method for fewer frame drops, optimizing frame rate and rendering by 54%
- Built a real-time camera frame visualization and performance analysis tool using OpenCV adopted by 4 departments and 60+ employees for advanced insights and debugging

Cognizant   Remote
Programmer Analyst Trainee (Intern)   *January 2022 - August 2022*
- Completed extensive Salesforce training with over 100+ trailheads and 15 major projects delivered, gaining expertise in data management, security, Apex programming, Aura components, and Lightning Web Components
- Acquired key platform knowledge including administrator features, Apex and Visualforce coding, Lightning platform, and security and accessibility protocols

Arohar Technologies   Dehradun, India
Software Engineering Intern   *April 2019 - September 2019*
- Developed an internal CRM tool with ASP.NET and MySQL for monitoring client data. Implemented using an MVC architecture and employed by over 2000 users
- Integrated stored procedures in PL/SQL with Azure DevOps and CI/CD to enhance data management and storage, reducing query execution time by 30%

PROJECTS

- **Discuss** - An instant messaging and VoIP social platform, made using Next.js 13 and MySQL, that enables users to join servers and communicate in channels. Leverages web sockets with optimistic updates for 60% faster multimedia file transfers and video/voice conferencing.
- **Movie Recommender** - A full-stack web app, built using Flask (Python), that applies cosine similarity with TF-IDF to rank and recommend movies according to the user's preference with a satisfaction rate of 94%.