

Ayush Koul

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EDUCATION

San Jose State University (SJSU)

Master's in Computer Science

San Jose, CA

August 2023 - May 2025

- Relevant Courses: Topics in Machine Learning, Server-Side Web Programming

Graphic Era University

Bachelor's in Computer Science (GPA: 3.8 / 4.0)

Dehradun, India

August 2018 - June 2022

- Relevant Courses: Design and Analysis of Algorithms, Data Structures in C, Linear Algebra

TECHNICAL SKILLS

Programming Languages

C++, Python, C#, Java, Kotlin, 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

Software Engineer

Bangalore, India

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

Programmer Analyst Trainee (Intern)

Remote

January 2022 - August 2022

- Obtained comprehensive Salesforce training with over 100+ trailheads and 15 major projects delivered
- Gained expertise in data management, security, Apex programming, Aura components, and Lightning Web Components
- Collaborated with the development team and created automated testing tools that reduced manual QA time by 80%

Arohar Technologies

Software Engineering Intern

Dehradun, India

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

- **Instant messaging and VoIP social platform** - A web app made using Next.js 13 and MySQL that enables users to join servers and communicate in channels. The app also allows 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 recommend movies according to the user's preference with a satisfaction rate of 94%.