

Ekagra Gupta

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EDUCATION

Arizona State University, Tempe, AZ

May 2026 (Expected)

Bachelor of Science in Computer Science

GPA: 4.0/4.0

Relevant Courses: Data Structures and Algorithms, Software Engineering, Operating Systems, Object-Oriented Programming, Database Management, Machine Learning, Applied Linear Algebra, Distributed Systems.

WORK EXPERIENCE

Edupoint Educational Systems

Phoenix, AZ

Software Engineer Intern

August 2024 – Present

- Optimized authentication workflows by creating secure SSO solution using **OAuth2.0, Angular and Express.js** while integrating **MongoDB** and **Redis** for scalable **session management**, optimizing login efficiency for **5.5 million students**.
- Developed a scalable student attendance tracking system using **Django, C++, and PostgreSQL**, integrating **Firebase** and **Google Cloud Platform (GCP)** for real-time data syncing, analytics, and enhanced reporting accuracy.

Carnegie Mellon University

Pittsburgh, PA

Software Engineer Research Assistant

June 2024 – August 2024

- Analyzed collaboration in **Machine Learning pipelines** by reviewing GitHub repositories and model deployment in open-source projects using **Git** and **Docker** to identify integration challenges between data scientists and software engineers.
- Developed tools using **Flask, TensorFlow**, and **REST APIs** to automate **ML model testing** and document expectations, improving cross-team communication and reducing production deployment errors by 25%.

Arizona State University

Tempe, AZ

Software Engineer

March 2023 – June 2024

- Developed **automation scripts in Python** optimizing **CI/CD pipelines** and reducing deployment time, resulting in a **15% increase in system efficiency** and reduced manual intervention.
- Developed a system diagnostics tool using **Spring Boot and REST APIs**, integrating **JNA/JNI** for system interactions and Prometheus for real-time monitoring, reducing downtime by 25%.

Carrier

Remote

Software Developer Intern

May 2021 – May 2022

- Designed and implemented **Java, C++ and NoSQL based in-memory Database Engine** to accurately track sales, returns, and inventory, enhancing stock management practices and reducing record discrepancies by 18%.
- Optimized software algorithms through code reviews and debugging, improving efficiency and saving \$110K annually.

TECHNICAL SKILLS

Programming Languages: Python, C++, Java, JavaScript, Typescript, Go, C, C#, Swift

Frameworks & Libraries: React, Next.js, Bootstrap, Angular, Flask, .Net, PyTorch, NumPy, Tailwind CSS, TensorFlow

Tools, Databases, and Software: MongoDB, MySQL, Linux, Ubuntu, NoSQL, Docker, Git, AWS, VirtualBox

PROJECTS

FocusTime AI | MediaPipe ML, TensorFlow, Flask, React, Python

- An **AI-powered** web app built with **React, Flask, and PostgreSQL**. Integrated **MediaPipe Holistic** to extract **543** key points and used **TensorFlow** for **real-time gesture analysis**, detecting and addressing procrastination during study sessions.

ResQ | Java, NodeJS, ExpressJS, MongoDB

- Developed a disaster management app for efficient collaboration among rescue agencies, utilizing **Java, Node.js, Flutter** and integrating **Google Maps API** for **real-time location tracking**, reducing rescue response times by 22%.

Operating System Kernel | C++, C, Linux, Ubuntu, Python, ASM (x86_64)

- Built an OS kernel with **virtual memory management, ELF execution, and multicore support** on x86_64, implementing **paging, Round-Robin scheduler, and syscalls** for user-space programs.

Chess Arena | C++, React, Node.js

- Developed a **full-stack web-based chess application**, utilizing **React** for dynamic front-end interactions and **Node.js** and **C++** for robust backend chess engine logic. Deployed and managed the application through Vercel achieving 99.8% uptime.

CERTIFICATES AND RELEVANT EXPERIENCE

Machine Learning Specialization | Stanford University | Coursera

Meta Full Stack Developer Professional | Meta | Coursera

Software Developer | EPICS Program | ASU x OpenAI

Technical Lead | Google Developer Student Club | ASU