

ANSH GOPINATH

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EDUCATION

Arizona State University

Expected May 2025

Bachelor of Science in Computer Science

Tempe, AZ

- In Dean's List for 7 semesters
- New American University Scholar

RELEVANT COURSEWORK

- Digital Design
- Operating Systems
- Programming Languages
- Machine Learning
- Computer Architecture
- Software QA & Testing
- Theoretical CS
- Software Engineering

EXPERIENCE

Computer Vision Engineer

August 2024 – Present

Eagle Eyes Search - Capstone

Remote

- Developed a robust **HSV-based color filtering algorithm** in **OpenCV** to isolate specific clothing color profiles in UAV-captured aerial imagery, resulting in a 15% improvement in detection accuracy.
- Integrated the custom color detector into the anomaly detection framework (leveraging **YOLO**) to enhance identification of critical outliers, reducing false negatives by 10%.

Teaching Assistant - Intro to Programming Languages

August 2023 – December 2023

Ira A. Fulton Schools of Engineering

Tempe, AZ

- Managed and analyzed academic performance data for 200+ students to identify trends and drive targeted improvements.
- Conducted weekly office hours and provided personalized coding support in **Java**, **C**, **C++**, **Scheme**, and **Prolog**.
- Led exam review sessions to enhance student engagement and collaborated with faculty to update course materials.

Campus Safety Aide Supervisor

July 2022 – Present

Arizona State University

Tempe, AZ

- Analyzed campus safety data, formulating and implementing methods to reduce incidents by 20%.
- Utilized **ArcGIS QuickCapture** for efficient data collection and created visualizations for strategic decision-making.
- Developed and maintained dashboards for real-time monitoring of campus safety metrics.
- Collaborated with campus safety teams to deploy data-driven solutions, improving response times by 15%.

PROJECTS

CourseSphere | JavaScript, Express.js, Node.js, Python, Selenium, SQLite

September 2024

- Developed a comprehensive platform serving 48,000+ ASU students to access course information, professor reviews, Reddit posts, community discussions, and career assistance.
- Built a robust backend with Express.js and Node.js for efficient data handling and seamless user interactions.
- Integrated community features such as forums and chatbots to deliver personalized course recommendations and enhance student engagement.

Arian | Python, Pygame, Google Cloud

July 2024 – Present

- Independently developed a fighter platformer game featuring 10 unique characters and 50+ dynamic backgrounds using **Python** and **Pygame**.
- Integrated **Google Cloud** for user authentication, high score tracking, and secure data storage to ensure scalability.
- Optimized game performance through iterative profiling, ensuring smooth gameplay and a 25% improvement in responsiveness.
- Implemented real-time leaderboards and cloud-based progress tracking to boost user engagement.

EffortLogger | Java, Eclipse, JavaFX, SQLite

January 2023 – April 2023

- Developed a project management application processing over 1M records using a secure, scalable **SQLite** database.
- Designed a user-friendly **JavaFX** interface, improving task management efficiency by 40%.
- Integrated **Spring Security** to safeguard data integrity and ensure user privacy.
- Created custom APIs for seamless data synchronization, streamlining workflow processes by 35%.

Football Database Management System | Python, Flask, PostgreSQL, HTML, CSS

August 2023 – December 2023

- Collaborated to develop a comprehensive football database system enabling dynamic exploration of clubs, players, and trophies.
- Led data modeling and query optimization to design an efficient **PostgreSQL** schema, supporting dynamic search and filtering.
- Integrated a **Python-Flask** backend with an intuitive **HTML/CSS** frontend for seamless data interaction and improved user experience.
- Documented project outcomes with a detailed user manual and final presentation, showcasing improved data retrieval performance.

SKILLS

Programming Languages: Python, Java, JavaScript, C, C#, C++, MATLAB, HTML, CSS, LaTeX, MIPS, x86

Frameworks & Databases: Node.js, Express, React, Flask, JavaFX, Flutter, Selenium, Pygame, PostgreSQL, SQLite

DevOps & Cloud: Git, GitHub, Docker, CI/CD (GitHub Actions), AWS, Google Cloud, TLS/SSL, Spring Security, Secure Data Handling

Tools & Methodologies: Agile/Scrum, Test-Driven Development (TDD), Human-Computer Interaction, UI/UX Design Principles, Excel, ArcGIS QuickCapture, Anomalib, Figma, Axure RP, Airtable, Fusion 360