Arnav Surve

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EDUCATION

California State University - Sacramento   Sacramento, CA
Bachelor of Science, Computer Science   *Aug. 2024 – May 2026*

Purdue University   West Lafayette, IN
Bachelor of Science, Cybersecurity – Dean's List, Fall 2023   *Aug. 2022 – May 2024*

TECHNICAL SKILLS

Languages: Python, Java, C, SQL, Go, LaTeX, Javascript, HTML/CSS
Frameworks: Agile, PostgreSQL, Svelte, Node.js/ExpressJS
Tools: Git, Vim, AWS EC2/S3/IAM/Lambda, Bash, Docker, Jupyter Notebooks
Libraries: pandas, NumPy, Matplotlib, InfraPy, SciKit-Learn

PROJECTS

LastFM-crawl | *Python, Flask, AWS Lambda, Docker*   July 2024
- Developed a wrapper for the Last.fm API as a modular way to embed Last.fm stats in a website or application.
- Implemented API endpoints to serve JSON data (e.g. listening history, followers/following, and aggregated daily/monthly/yearly listening stats).
- Containerized using Docker and created a CI/CD pipeline with Zappa for seamless testing and deployment.
- Deployed to AWS Lambda for serverless endpoint access, mitigating ∼$15 in monthly costs compared to AWS EC2.

RELEVANT COURSEWORK

CSC 20 - Programming Concepts and Methodology II   Java, OOP, Big-O
CSC 35 - Introduction to Computer Architecture   x86 Assembly, UNIX Shell

EXPERIENCE

IT Infrastructure Intern   June 2024 – Aug. 2024
MITER Brands – Milgard Manufacturing   *Tacoma, WA*
- Conducted a granular analysis of IT server, application, and network monitoring landscape.
- Composed a proposal to optimize alerts flow for greater scalability and quicker incident resolution, reducing average inbox volumes by ∼60%.
- Developed 5 Site24x7 monitors to track latency metrics for Infor Cloud REST API endpoints.
- Overhauled Site24x7 monitor and alert groups, escalation policies, and alert thresholds to mitigate tech debt and improve efficiency by ∼20%.

Undergraduate Researcher   May 2024 – Aug. 2024
NASA California Space Grant Consortium   *Sacramento, CA*
- Developed unsupervised classification models employing K-Means clustering and agglomerative clustering for volcanic activity prediction, utilizing training data from Boise State University's infrasound data repository with a maximum (0.47) silhouette score.
- Constructed an infrasound sensor array and monitor using Amphenol Board Mount Sensors and Raspberry Pi.

Backend Developer   Aug. 2022 – May 2023
Purdue University Office of Engagement   *West Lafayette, IN*
- Worked in a 10 person team using Agile methodology to develop a web application to enable research grant applications.
- Implemented federated authentication using Purdue University Single Sign-On.
- Architected an ORM database to handle user data and grant applications using PostgreSQL.
- Utilized Docker for containerization and ease in deployment of backend services.