Aarush Inamdar

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EDUCATION

University of California Irvine | B.S. Computer Science, Specialization: Networks, AI/ML **Graduation:** June 2026 **| GPA: 3.7**

Coursework: *Data Structures & Algorithms, Artificial Intelligence, Software Libraries, Human-Computer Interaction, Financial Data Analytics (Python), Object Oriented Programming, CS Statistics, Boolean Logic, Discrete Structures, C/C++ Programming, Software Processes, Networks*

Extracurriculars: *Community Lead* - **GoogleDSC**, *Ambassador* - **Microsoft**, *President, Tech Chair* - **AKPsi,** *SWE* - **EthosAI**, *Volunteer* - **ASUCI**

SKILLS AND INTERESTS

Skills: Python, Javascript, Swift, SQL, C/C++, React | NumPy, Pandas, FastAPI, Node, Pytest | Git, APIs, AWS/Azure, VIM, Linux, Bash, Docker

Awards/Certificates: Deloitte Mentorship**,** TSM Mentorship, Apple Pathways, Microsoft MVP, Azure Cloud Certified, IBM GenAI SWE

Interests: Networks, Web Design**,** AI, AR/VR, Cybersecurity, Game Dev, Cloud Computing, Databases, Opensource, IoT , Cryptocurrency, IT

EXPERIENCE

TRL11 **Irvine, CA**

Software Engineering Intern June 2024 - September 2024

- Architectured a scalable database migration framework for SQLite and NoSQL schemas, enabling seamless version incrementation and decrementation and enhancing data consistency and schema deployment across devices via **SQLAlchemy** and **FastAPI** endpoints
- Accomplished enabling real-time network camera browsing, temperature monitoring, and memory performance optimization, leveraging zeroconf and jtop, leading to a **33%** greater 'SAVER' cpu system stability via efficient throttling and memory management as needed
- Developed comprehensive import/export and factory reset settings features, and revamped software update Bash scripts and depackaging via .deb files for install time compilation, and included **Py/UnitTest** packages in backend files improving maintenance efficiency by **25%**
- Engineered strength and durability specifications for space-condition cameras and processors using Python scripts, radial velocity, solar constant, and astrophysical parameters via **NumPy**, resulting in a fleshed out operating manual for TRL11 product use in space

APPLE **Irvine, CA**

Software Engineering Intern January 2024 - May 2024

- Spearheaded migration of front-end frameworks into modular library dependencies to establish a unified master model API for all internal sales applications, boosting code reusability by **33%** for front-end use and **10%** for back-end operations across technology retail teams
- Generated a **30%** increase in retail check-in efficiency by designing and deploying a location tracking feature in master module, automating employee check-ins in real time at a store, leveraging Geofencing technologies to streamline KPI processes and work hour tracking
- Improved retail employee project assignment and tracking in internal CRM "Contact" app by engineering and completing a front-end initiative for a SwiftUI 'Task' page with Gantt Chart program and Kanban UI for project management efficiency and manager ease of use
- Optimized Contact for **20% greater** load and response rate by comprehensive testing and executing subquery optimizations in SQL

TALKER.NETWORK **Los Angeles, CA**

Software Developer Intern July 2023 - August 2023

- Enhanced advertising and marketing program visibility **15%** by migrating from HTML/CSS/JS to React.js, quickly acquiring proficiency and contributing to seamless transition to site and developing a settings and functionality dashboard for ads and adding restful APIs in Flask
- Designed **Node.js** security scan API for Google Cloud projects and ads, finding and fixing 86 common vulnerabilities in microservices
- Made organizing accounts and handling functions **30%** more time-efficient by designing Admin dashboards to control other accounts, monitor user activity, and configure web functionality, redesigning and updating older admin controls in Flask-based architecture

PERSONAL PROJECTS

3D Graphics Shadow and Brightness Calculator - *Python NumPy iPynb Project*

- Conducted matrix operations to calculate brightness of a graphic prismic mesh simulating real objects using eigenvalue and cross-product
- Devised graphics rendering calculation functions via advanced **NumPy** methods: linear solving/transpose for shadow graphics processing
- Optimized algorithms for spatial data structure management, handling complex 3D geometries and revising rendering performance

Ethereum Price Predictor - *Python Prophet NumPy Predictor App*

- Defined **Prophet** forecasting model with "multiplicative" seasonality mode to accommodate and visualize YoY crypto price trends data
- Generated Ethereum price forecasts, predicted values, and lower and upper bounds for specified periods using Panda operations on YTD Ethereum data of up to **1055 GB**. Conducted hyperparameter tuning, increasing prediction accuracy by **20%** including error mitigations

DataAlchemy: Cinema Trends Analyzer - *Python Pandas Data Analyzer App*

- Demonstrated keen data management skills by creating a heatmap to visualize null values, and calculating the percentage of missing values per column. Employed **Pandas** techniques to drop rows with missing data to manage errors when parsing data and predicting future values
- Utilized sophisticated data aggregation and visualization techniques using **Seaborn**, matPlotLib, and Pandas to uncover trends, including the average votes and revenue by year and highlighting the directors, movies, and duration with the highest mean ratings for trend analysis

Real Estate Xplorer - *Next.js Property Buyer Web App*

- Implemented property filtering algorithm, utilizing React components to add intuitive and responsive search features for properties on sale
- Utilized **API calls** for geolocation, property data retrieval, image generation, and integrations, optimizing app functionality for locations
- Utilized JavaScript to implement dynamic animations that respond to user interactions, effectively guiding users through search process

CryptoApp - *React.js CryptoCurrency Ranker and Browser*

- Integrated **Chart.js** to provide interactive trend visualization, enabling analysis of market performances with graphs and infographics
- Leveraged **Redux** for state management, ensuring a robust and scalable architecture that maintains efficient data flow and updates
- Enhanced application UX and performance through server-side rendering, improving page load times by **12%** and overall smoothness