James Homer

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EDUCATION

University of California: Irvine | Pursuing a Bachelor's Degree in Computer Science — Expected June. 2025

- 3.78 GPA
- Activities & Societies: ZotBins, Association of Computing Machinery, Hack @ UCI, Video Game Development Club
- Honors & Awards: Regent's Scholar & Dean's Honor List (4x)
- Relevant Coursework: Data Structures & Algorithms, Python Programming 1-3, C++ Programming, C Programming, Boolean Algebra, Discrete Math, Computer Organization & Assembly

SKILLS

Python | C++ | C | SQL | Assembly (MIPS) | Github | APIs | AWS | Computer Hardware & Building

Problem-Solving | Leadership | Communication | Detail-Oriented

EXPERIENCE

Software Developer Intern — Feb. 2023 - Present

BlackBerry | Irvine, CA

- Spearheaded the refactoring of the frontend and backend legacy codebases in both **JavaScript** and **Python**, reducing code complexity by **20%** while increasing code test coverage by **10%**, resulting in improved code maintainability and higher quality assurance.
- Debugged and resolved backend issues in **Python** within a large-scale architecture, leveraging **AWS** resources to optimize **API** endpoints and database calls, achieving an average ticket turnover rate of **1-3 days** and reduced query execution time by over **30%**.
- Mentored new interns, resulting in a **50% reduction** in onboarding time and enabling them to contribute to project deliverables within 1-2 weeks of beginning

IoT-SITY @ UCI: Undergraduate Research Internship — June 2022 - August 2022

University of California, Irvine | Irvine, CA

- Led the implementation of **CRUD** operations on a **PostgreSQL** database for CareDEX, a data exchange for emergency services, reducing query response time by **10%**
- Conducted rigorous testing of hardware localization across heterogeneous devices using TIPPERS, a sensor data management technology, for a floor coverage of over **80%**
- Facilitated the successful integration of research findings into practical applications, resulting in improved emergency response protocols and enhanced communication between stakeholders

ZotBins: Zero-Waste Initiative Research — Mar. 2022 - Present

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- Pair-programmed **PyTorch** models that classify pictures into 3 trash categories for a **95% accuracy** rate within an existing Serverless codebase, altogether leveraging **AWS ECR** for deployment
- Implemented **AWS CloudWatch** logging for the **API** endpoints, achieving **70-80% code coverage** while enhancing reliability, error-tracking and overall system performance for the API **Lambda** functions
- Facilitated cross-functional communication with other subgroups to establish cohesive plans and strategies for waste recognition, ensuring effective coordination and alignment of efforts across the project

PROJECTS

Emotion.ly: Submission for HackUCI's Hackathon 2022 — Feb. 2023

- Managed **API** calls and integration in Python, resulting in a roughly **100 millisecond** API response time, enhancing the overall speed and responsiveness of the application
- Utilized credible databases and efficiently parsed information to provide a comprehensive database of about **5000** emotionally-charged words and their associated nuances