

# Jarren Seson

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## EDUCATION

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### University of Hawaii at Manoa

*Bachelor of Science in Computer Science*

- Expected graduation date: May. 2027

**Aug. 2022 - Present**

*Honolulu, HI*

## WORK EXPERIENCE

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### Laboratory for Advanced Visualizations and Applications

*Undergraduate Research Assistant*

- Contributed to the development of SAGE3, a collaborative, real-time, web-based workspace supporting scientific research and interactive applications.
- Designed and implemented React/TypeScript applications integrated into the SAGE3 platform's multi-app ecosystem.
- Developed scalable UI components using Chakra UI and custom React hooks, ensuring responsiveness, state management, and seamless multi-user interactions.
- Built visualization tools (SVG diagrams) to enhance scientific collaboration and communication.

**Sep. 2025 – Present**

*Honolulu, HI*

### W.M Keck Observatory

*Software Engineer Intern*

- Contributed to the High-order Advanced Keck Adaptive Optics (HAKA) project, supporting the upgrade from a 349-actuator to a 2874-actuator deformable mirror for the Keck II telescope
- Designed and implemented a python-based calibration script to measure non-common path aberrations between the adaptive optics system and science camera using wavefront sensor data
- Utilized software to convert wavefront measurements into centroid offsets to optimize the closed-loop performance of the adaptive optics system
- Conducted mock IOC test and bench tests on Keck I and Keck II

**Jun. 2025 – Aug.2025**

*Kamuela, HI*

### University of Hawaii at Manoa

*Web Application Developer*

- Developed and maintained front-end and back-end components for the University of Hawaii groupings website using HTML, JavaScript, React, AngularJS, and Java
- Integrated with external APIs to fetch data from third-party platforms, expanding website functionality and improving user experience.
- Conducted thorough testing and debugging.
- Contributed to UX improvements based on user feedback.

**May. 2023 – Nov. 2023**

*Honolulu, HI*

## PROJECTS

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### Sentiment Drift and Bot-Like Text Detection

- GitHub Link: <https://github.com/BryanNak/SentimentAnalysis>
- Description: End-to-end ML pipeline that scraped Bluesky posts, filtered bot-like text, classified sentiment, and visualized public opinion trends over time.

- Coding language: Python
- Achievements: Fine-tuned RoBERTa for sentiment analysis, engineered TF-IDF/XGBoost bot detection, and produced time-series sentiment drift visualizations.

### **Bank Database Application**

- GitHub Link: <https://github.com/jarrenceson/ICS-221-PROJECT-1>
- Description: Simple banking application that allowed the user to add “records” to a linked list, implemented by myself
- Coding language: C
- Achievements: Gained insights into dynamic memory allocation, pointers, and interactions between UI and backend

### **UH Jewels**

- GitHub Link: <https://github.com/UH-Jewels/uh-jewels-application-template>
- Description: A web application that acts as a marketplace for jewelry
- Coding language: TypeScript, HTML, and CSS
- Achievements: Gained insight into UI development, learned about SQL and database interactions

### **SKILLS**

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- **Programming languages:** Java | C | Python
- **Version control:** Github