Bailey Say

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Experience

Backend Developer Intern | Centrova   **December 2024 – Present**

- Implemented patient to clinical trial evaluations by fetching from the government's clinical trial API and utilizing Azure OpenAI Services (to remain HIPAA compliant), allowing hospitals to quickly evaluate if a patient is suitable for a clinical trial, which can be an extremely slow process if performed manually

- Configured AWS resources including Lambda, API-Gateway, Cloudwatch, and EC2 by setting up Pulumi project for Infrastructure-as-Code implementation with different stacks for development and staging phases of the project, leading to faster deployments, more consistent configurations, and greater ease of accessibility for the team

Firmware Developer | Gaucho Racing   **November 2024 – Present**

- Developed STM32 firmware in C to enable state-machine functionality and driver-interface of an electric race car.

- Configured STM32 microcontroller using STM32 Cube MX and developed inter-PCB communication by implementing FDCAN and CAN 2.0 protocols in the Electronic Control Unit and Dash Panel, leading to faster centralized motor control and inter-PCB communication compared to previous years (which utilized Arduino)

- Designed streamlined UI for dash panel screen using LVGL library with STM32 CAN communication, giving the driver easy access to crucial information and control over car functionality

STEM Teacher | Grace All Star Academy   **July 2024 – August 2024**

- Taught STEM classes ranging from Python, Engineering, Data Science, 3D-Printing, etc.

- Provided classes of ~30 3rd-5th graders with opportunities to experiment with and observe real-world software and tools such as Excel Spreadsheets and 3D-Printers (Ender 3), allowing them to freely explore their interests in STEM subjects

- Independently created detailed lesson plans and materials to establish focused and fun learning environment

Projects

Scribble Script | SBHacks XI

- Website allowing users to scan handwritten code directly into a code editor with multi-language compilation support and AI syntax/formatting correction

- Developed Frontend API calls to HuggingFace Library, Anthropic AI, and custom code-compiler on Flask server (hosted on AWS EC2), efficiently handling user input (through file uploads and direct code editing)

- Best UI/UX Award for minimalistic and dynamic web user interface

Education

University of California, Santa Barbara   **September 2024 - June 2027**

Major: Computer Science | Minor: Mathematics

GPA: 3.97

Relevant Courses: Problem Solving with Computers I-III, Computer Organization and Logic Design, Data Structures and Algorithms I, Deep Learning, Computer Architecture, Embedded Programing, Discrete Mathematics, Abstract Linear Algebra, Real Analysis

Skills & abilities

- Computer Languages: Python, Java, C, C++, Haskell, Rust, HTML, CSS, TypeScript, React

- Frameworks: Spring Boot, Next.js, Jekyll, Flask, Node.js, Pulumi, AWS, Azure