# Christopher Bannon

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### Education

#### University of California, Berkeley — GPA: 3.72

Aug 2020 - Present

B.A. in Computer Science

Berkeley, California

Coursework: UI/UX Design & Development, Data Structures, Algorithms, Computer Architecture, Operating Systems, Discrete Math & Probability, Data Science, AI, Machine Learning, Digital Design & Integrated Circuits

# Experience

#### UC Berkeley EECS — Undergraduate HCI Researcher

Sep 2023 - Present

- Experimented with functional bio-materials to create sustainable electronics and decomposable interactive systems
- Grew conductive mycelium and programmed microcontrollers for use in low power sensing/broadcasting applications

# UC Berkeley EECS — Undergraduate Student Instructor (CS160)

Jun 2023 - Present

- Organized scope, sequence, and delivery of instruction on HCI, UI/UX, web dev, and product design
- Developed a python script to automate staff Airtable-to-email logistical workflow saving 10% of TA hours
- Critiqued 200+ assignments/projects and received a 9.4/10.0 approval rating for teaching effectiveness

## FavorX — Software Engineer Intern

May 2023 - Aug 2023

- Collaborated closely with the design team to polish user-centric interfaces and deploy solutions in React Native
- Scaffolded a scalable service using Expo's API to upload profile pictures to a secure url in an AWS S3 bucket
- Implemented and refined user's 'transfer tokens' flow; used redux to integrate firebase with the backend API, resulting in improved asynchronous efficiency and state management

#### Computer Science Mentors — Senior mentor (CS61B)

Jan 2022 - Jan 2024

- Lead a weekly comprehensive review session for a group of 61B students; rated 9.2/10.0 for teaching effectiveness
- Hosted monthly conceptual workshops for up to 80 61B students on java, data structures, and algorithms

# **Projects**

#### RISCV CPU with Audio Synthesizer — Verilog, C, Python

- Designed and implemented a 3-stage pipelined RISC-V CPU with integrated UART for tethering, using Verilog
- Integrated audio and IO components to the CPU system, via memory mapping, to create a functional audio synthesizer
- Doubled clock speed to 100MHz by adding pipeline stages, smart forwarding, and BTFNT branch prediction

#### $\mathbf{ASCII}\ \mathbf{Sandbox} \longrightarrow \mathit{React},\ \mathit{Typescript},\ \mathit{FastAPI}$

https://github.com/Cbannon35/ASCII-sandbox

- Built a full-stack web-app that leverages Langchain and GPT to query Figlet's API to generate ASCII messages from user's text input for <u>Calhack's AI Hackathon</u>
- Migrated development to **Svelte** and transitioned to client-side data fetching to improve performance

#### Internpedia — React

https://github.com/internpedia/frontend

- Lead a team of 4 through the design and development of a web-app that democratizes the internship search process
- Defined project plan and delegated weekly deliverables while teaching fundamental version control and agile development

#### Skills

Computer Languages: Python, C, Java, Swift, HTML/CSS, JavaScript, Typescript, RISC-V Assembly, Verilog Full-Stack Technologies: React, Redux, Svelte, Expo, Tailwind, Bootstrap, FastAPI, MongoDB, SQL, Firebase