Brody Pen

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EDUCATION

University of Houston — Houston, TX
Bachelor of Science in Computer Science, Minor in Mathematics — *Expected: Dec 2024*
GPA: 3.65/4.00

Relevant Coursework: Software Design, Software Engineering, Algorithms and Data Structures, Database Systems, Operating Systems, Computer Networks

SKILLS

Languages: JavaScript, TypeScript, Python, HTML/CSS, C/C++, Java, SQL
Frameworks: React, Spring, Spring Boot, Next.JS, Express.js, Astro
Other: Git, GitHub, BitBucket, Jira, Scrum, Firebase, Supabase, Docker, REST APIs, Linux, Jest

EXPERIENCE

JPMorgan Chase and Co. — Houston, TX
Incoming Software Engineer Intern — *Jun 2024 - Aug 2024*

ConocoPhillips Computer Science Learning Center — Houston, TX
Tutor — *Aug 2023 - Present*
- Facilitated tutoring sessions for over 50 students, encompassing basic programming through to Data Structures.
- Led student teams in analyzing complex problems, developing strategic solutions, and implementing effective problem-solving strategies, resulting in a remarkable average GPA increase of 50% within one academic term.
- Diagnosed and addressed learning gaps in student comprehension through tailored lesson plans and one-on-one tutoring sessions; boosted student retention by 33%

CougarCS — Houston, TX
Web Development Team Lead — *Aug 2022 - Present*
- Leading a collaborative team of 8 developers with building a management web application.
- Teaching students modern trends and best practices in web development, Agile methodology, and Git workflow.
- Orchestrated weekly team agile meetings, leveraging individual strengths to assign tasks effectively; optimized team productivity by 40% through targeted task delegation and alignment with team expertise.

PROJECTS

CougarCS Admin Portal | *React, TypeScript* — Apr 2023 - Present
- Created web application for officers to manage data of members in Supabase PostgreSQL database.
- Adopted reusable unit tests to ensure quality control resulting in better safety and reduction in bugs.
- Redesigned project type safety leading to better developer experience and safety.

Socialverse | *React, TypeScript, Supabase* — Jun 2023
- Developed a type-safe CRUD app to add their favorite social content creators.
- Achieved type safety form input with TypeScript, Zod, and React-hook-form.
- Used tailwind CSS to create a modern responsive site.

AWARDS

NASA HUNCH Finalist | *Python — Generic Ag Nano Lab* — May 2021
- Won Design and Prototype Finalist, chosen from a select group of 510 schools.
- Engineered a Raspberry Pi Zero W to record video and monitor temperature, pressure, and humidity.
- Integrated Twitter API to upload images and graphs after a set interval of time.