# HECTOR ESTRADA

92114, San Diego CA
6197109493
hestradarojas5095@sdsu.edu
**WWW:** https://portfolio-taupe-pi-4i38yshxf1.vercel.app/

## EDUCATION

**BACHELOR OF SCIENCE**: COMPUTER SCIENCE B.S — Expected in 01/2027
**San Diego State University**, San Diego, California

## PROFESSIONAL SUMMARY

Full-stack developer and Computer Science student at SDSU with experience building real-time web applications, secure payment systems, and data-driven tools. Skilled in Python, TypeScript, React, and SQL. Passionate about delivering scalable software, clean code, and user-centric solutions.

## SKILLS

- **Programming:** Python, Java, JavaScript, TypeScript, HTML/CSS, SQL
- **Web & Frameworks:** React, Next.js, Tailwind CSS, Socket.io, REST APIs, NextAuth.js
- **Databases:** PostgreSQL, MySQL, Prisma ORM
- **Tools & Platforms:** Git, GitHub, CI/CD pipelines, Vercel, Jupyter, Google Colab, Stripe API, MATLAB

## EXPERIENCE

### BIDME AUCTION PLATFORM (INDEPENDENT PROJECT)

**Full-Stack Developer** — 03/2024 to Current

- Built **BidMe**, a full-stack real-time auction platform from scratch using Next.js, Tailwind CSS, Prisma ORM, and PostgreSQL, demonstrating end-to-end development capabilities.
- Implemented live bidding via WebSockets for instant updates and integrated Stripe for secure payments, with real-time notifications to enhance user engagement and trust.
- Optimized performance and responsiveness with a modern, mobile-friendly UI (Tailwind CSS), delivering a seamless user experience under heavy bid traffic.

### PORTFOLIO (INDEPENDENT PROJECT)

**Web Developer – Personal Portfolio Website** — 01/2024 to Current

- Created a personal portfolio site using React, TypeScript, Next.js, and Tailwind CSS to showcase projects and skills in an interactive, professional format.
- Engineered dynamic features (animated code blocks, reusable UI components) for an engaging user experience, leveraging Next.js SSR and custom API routes to boost load speed and SEO.
- Deployed via Vercel with a custom domain and CI/CD, resolving compatibility and pipeline issues to ensure reliable, hassle-free updates.

### SAN DIEGO STATE UNIVERSITY

**Undergraduate Researcher – SDSU** — 05/2024 to 08/2024

- Conducted bioinformatics research in a competitive STEM program, developing the **BIGG-U** database of genome-scale metabolic models to advance computational biology research.
- Developed Python and MATLAB scripts to parse large genomic datasets (FASTA files) and extract protein IDs, automating data ingestion and analysis.
- Designed and optimized relational database schemas in MySQL to store complex biological data, ensuring efficient retrieval and scalable expansion of the BIGG-U database.

### UNIVERSITY OF CALIFORNIA SAN DIEGO

**Research Assistant – (UCSD)** — 05/2023 to 08/2023

- Co-developed a deep learning library for time-series forecasting on 7 years of high-frequency (6-second interval) solar data, leveraging Python with Jupyter notebooks and Google Colab for large-scale processing.
- Implemented a Sequence-to-Sequence (Seq2Seq) deep learning model to forecast solar energy output, achieving robust performance on complex time-series data.
- Authored comprehensive documentation and developer guides, enabling easy adoption and reproducibility of the forecasting tools by future researchers.