David Cruz

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EDUCATION

Stevens Institute of Technology | Hoboken, NJ ....Sep 2020 – May 2024

Graduated with Bachelor of Science in Computer Science (with Highest Honor)

- **GPA:** 3.972
- **Awards:** Dean's List (2020F – 2024S), Edwin A. Stevens Scholarship, Chi Psi Centennial Scholarship
- **Activities:** Upsilon Pi Epsilon (Computing and Information International Honor Society), Chi Psi Fraternity
- **Relevant Coursework:** Web Programming I & II, Human-Computer Interaction, Database Management Systems, Object-Oriented Design & Analysis, Agile Methods for Software Development, Software Development Process, Quantitative Social Sciences, Linear Algebra, Intermediate Statistics, Systems Programming, Computer Architecture and Organization, Principles of Programming Languages, Theory of Computation, Discrete Structures, Algorithms, Data structures

PROJECTS

AI for Accessible Alt-Text | Stevens Institute of Technology & The Free Ebook Foundation ....Sep 2023 – May 2024

A Python package and REST API for generating alternative text for images in Ebooks to improve accessibility

- Developed an easy-to-use, expandable Python package to automate machine vision, OCR, and LLM software; distributed using PyPi.
- Designed a flexible REST API, produced using the Django Rest Framework and PostgreSQL; documented using the OpenAPI specification.
- Performed speed and accuracy benchmarks, and visualizations using R, to determine usefulness of current AI solutions.

GenEdUSA Website | Commissioned by GenEdUSA..Sep 2023 – Dec 2023

A storefront website to showcase GenEdUSA's services and contact information

- Developed using NextJS as the webserver, React as the frontend, and TailwindCSS + NextUI for styling.
- Deployed using CI/CD through GitHub and serverless hosting on Vercel.

Course Horse | Stevens Institute of Technology ....Sep 2023 – Dec 2023

An asynchronous learning platform developed for Patrick Hill's Web Programming II Course

- Developed using NextJS as the webserver, React as the frontend, SASS + Bootstrap for styling, and MongoDB for the database.
- Deployed using CI/CD through GitHub, serverless hosting on Vercel, and hosting the database via Mongo Atlas.

CoinWizard | Personal Project ....June 2023 – Sep 2023

A webapp with an assortment of basic cryptocurrency related tools

- Developed using NextJS as the webserver, React as the frontend, and data fetching using Axios with various APIs.
- Deployed using CI/CD through GitHub and serverless hosting on Vercel.

BIS | Stevens Institute of Technology...Jan 2023 – May 2023

An inventory management system webapp developed for Patrick Hill's Web Programming I Course

- Developed using Express as the webserver, Handlebars for a server-side rendering frontend, and MongoDB for the database.
- Deployed by "Dockerizing" the site, hosting the website via Google Cloud Run, and hosting the database via Mongo Atlas.

WORK EXPERIENCE

Stevens Institute of Technology | Hoboken, NJ ....Sep 2023 – May 2024

"Security, Privacy and Society" Course Assistant for Professor Abrar Alrumayh & Professor Tegan Brennan

- Monitored weekly labs for students to assess the class on various security and privacy topics via quizzes.
- Conducted weekly office hours for students to aid them with conceptual, assignment, and/or logistical questions.

Stevens Institute of Technology | Hoboken, NJ ....Sep 2021 – Dec 2023

"Introduction to Scientific Computing" Course Assistant for Professor Edward Banduk

- Presided weekly labs for students to reinforce basic computing concepts and Python programming skills.
- Performed walkthroughs of coding exercises for students to demonstrate basic programming techniques.

Stevens Institute of Technology | Hoboken, NJ ....Jan 2023 – May 2023

"Data Structures" Course Assistant for Professor Abrar Alrumayh

- Administered weekly recitations for students to reinforce data structure concepts and Java programming skills.
- Appraised assignment submissions for students by implementing and executing JUnit tests.

Stevens Institute of Technology | Hoboken, NJ ....Jan 2022 – May 2023

"Computer Organization and Programming" Course Assistant for Professor Edward Banduk

- Evaluated assignment submissions for students to gauge their understanding in computer architecture and low-level programming.
- Managed course materials, assignments postings, and grades for students on Canvas to ensure accessibility.

LEADERSHIP POSITIONS

Chi Psi Fraternity | Stevens Institute of Technology ....Jan 2023 – Dec 2023

Social Chair & Public Relations Chair

- Allocated a $5000+ budget for a semester to ensure proper spending for social events.
- Planned 15+ events to establish campus presence and quality relations with other on-campus organizations.
- Overlooked 20+ individuals to ensure the completion of tasks before, during, and after each event.
- Maintained the chapter's social media and crafted posts periodically to update other students about upcoming events and activities.
- Authored articles to be published in a within-organizational newsletter to inform Chi Psi Alumni about the status of the chapter.

SKILLS

Programming Languages: Javascript, Typescript, Python, HTML, CSS, Java, R, C, C++, Bash, Erlang, Ocaml, Promela, Groovy, ARMv8, Racket

Development Tools, Frameworks, & Libraries: NodeJS, Express, Handlebars, React, NextJS, Vite, NextUI, Sass, JQuery, Bootstrap, ThreeJS, Recharts, Axios, AJAX, Puppeteer, Marked, DOMPurify, Bcrypt, XSS, Multer, Cypress, Conda, Django, Django Rest Framework, BeautifulSoup, EbookLib, PyQt5, JUnit

Data/Database Tools & APIs: JSON, MongoDB, Firebase, GraphQL, PostgreSQL, MySql, Google Maps API, Google AI API, OpenAI API

Deployment/Cloud Tools: Vercel, Mongo Atlas, Oracle Cloud Infrastructure, Google Cloud Platform, Amazon Web Services, Cloudflare, GitHub Pages, Docker, Docker-Compose, Browserless

Technical Software & Tools: Windows, Linux, Git, PyPi, Visual Studio Code, Eclipse, VirtualBox, Mathematica, R-Studio, Valgrind, GDB

Professional Software: MS Office (Teams, Excel, Outlook, Word, Powerpoint), Google Suite (Drive, Docs, Sheets, Gmail), Zoom, Workday, Canvas