

# Aaron Chan

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## Education

### University of California San Diego

San Diego, California

B.S. in Computer Science, Minor in Design

Sep 2021 – Jun 2025

**Courses:** Data Structures, Algorithms, Systems Programming, Software Tools, Java Programming, Python Programming, Statistics, Discrete Math, Linear Algebra, Multivariable Calculus

**Clubs:** [Design Co](#) - Web Developer, [Triton Software Engineering](#) - Software Developer

## Technical Skills

**Languages:** Python, JavaScript, Typescript, Java, C, C++, SQL, HTML/CSS, Dart

**Frameworks:** React, NextJS, Astro, Flask, Django, Vue, Flutter

**Technologies:** Node.js, Express.js, Prisma, GraphQL, PostgreSQL, Firebase, MongoDB, Git, GitHub, VS Code

## Experience

### UCSD Design Lab - Software Developer Intern

Jul 2023 – Present

*Tools Used:* Typescript, React, LangChain, OpenAI API, Flask, Python, Clerk (Auth), MongoDB

- Engineered full-stack web application to support novice peer reviewers through PDF annotations and AI support
- Leveraged LangChain to create PDF embeddings to provide GPT-4 generated guided questions and review outlines
- Utilized MongoDB to store annotation data and GROBID to extract text and PDF coordinates
- Collaborated with designer to implement Figma designs, conducted formative studies, and co-authored paper

### Center for Applied Internet Data Analysis - Frontend Developer Intern

Feb 2023 – Sep 2023

*Tools Used:* React, GraphQL, CSS, PHP, Python, PostgreSQL, Prisma

- Developed infrastructure to migrate **database** with 5000+ records to PostgreSQL to improve data normalization
- Integrated Prisma ORM with GraphQL resolvers and created comprehensive database migration documentation
- Generated Python scripts to automate data entry, refactored code, and fixed various frontend and backend bugs

### Hack the Hood - Data Science Instructor Aide

Jun 2022 – Dec 2022

*Tools Used:* Python, SQL, NumPy, Pandas, Matplotlib, Seaborn, Scikit, Github

- Instructed 60+ students ages 16-25 Python fundamentals, Pandas, NumPy, Matplotlib/Seaborn, and Scikit-Learn
- Conducted code reviews and actively supported students by hosting 50+ hours of pair programming sessions
- Collaborated with instructors to curate **program curriculum** to support students' data science knowledge

### Cognixion - Software Developer Intern

Jul 2021 – Aug 2021

*Tools Used:* Python, Flask, HTML, CSS, Sass, Javascript, Bootstrap

- Spearheaded development of **Slanguage**, a web application that detects slang and displays chat statistics
- Utilized asynchronous calls to Google Trends/Urban Dictionary API to improve data retrieval speed by 10x
- Applied Slanguage to automate collection and analysis of 1000+ text messages for Cognixion's NLP systems

## Projects

### Unitivity - Full-stack Developer

Jan 2022 – Feb 2022

*Tools Used:* React, NextJS, Javascript, HTML, CSS, PostgreSQL, Prisma, Amazon S3

- Built **Unitivity**, a productivity social media website for users to create/share interactive graphs of custom data
- Designed frontend using React and Sass, supporting optimistic updates with React Query
- Leveraged Prisma ORM to interface NextJS backend with PostgreSQL database for simpler queries
- Utilized NextAuth and NextJS middleware to secure routes and support OAuth and Amazon S3 for image storage

### Portfolio - Frontend Developer

Mar 2023 – Apr 2023

*Tools Used:* Javascript, React, Astro, React Three Fiber (ThreeJS), CSS

- Integrated custom-designed 3D model using ThreeJS into responsive, performant, and accessible **Astro website**
- Constructed accessible modal and utilized the nano store state manager for 3D model interactivity settings

### IBM Accelerate - Software Developer Fellow

Jun 2022 – Aug 2022

*Tools Used:* Javascript, React, CSS, Express, Material UI, React Testing Library, Github

- Developed a React todo web application using Material UI for styling and React Testing to write unit tests
- Created an Express server for backend to persist data and developed REST API to perform CRUD operations