

# Samuel Ou

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## TECHNICAL SKILLS

**Languages:** JavaScript, TypeScript, Python, Java, HTML, CSS

**Frameworks:** React, NextJS, Node, Express, Flask, Tailwind

**Developer Tools:** AWS, PostgreSQL, MySQL, SQL Alchemy, MongoDB, Mongoose, Git, REST, JSON

## EXPERIENCE

### Software Engineering Fellow

Jul 2024 – Present

*Headstarter AI*

*Remote*

- Built 5+ AI apps using NextJS, OpenAI, Pinecone, StripeAPI with 98% model accuracy, verified by 1000+ users
- Developed projects from design to deployment leading other engineering fellows using MVC design patterns
- Coached by Amazon, Bloomberg, and Capital One engineers on Agile, CI/CD, Git, and microservice patterns

## PROJECTS

### E-Commerce | *TypeScript, React, AWS Lambda, Cognito, DynamoDB*

Jan 2024 – Present

- Utilized AWS Cognito for secure user authentication and DynamoDB for scalable database management
- Managed end-to-end features, ensuring web and mobile-friendly experience to boost user traffic
- Improved scalability and reduced operational costs by incorporating serverless architecture
- Tested payment gateways and account management with AWS Appsync for privacy protection and performance

### CashTrack | *TypeScript, React, NodeJS, ExpressJS, MongoDB*

Nov 2023 – Jan 2024

- Optimized data architecture by constructing flexible data models through Mongoose ORM
- Improved management efficiency for data models by reducing API response times by 40%
- Implemented robust authentication and session management with Express-Session and Cookie-Parser
- Leveraged MongoDB for flexible and scalable data storage

### SteelStance | *React, NextJS, Python, Flask, SQLite, SQL Alchemy*

Oct 2023 – Nov 2023

- Ensured data integrity and optimized storage efficiency, reducing data retrieval time by 30%
- Enabled cross-origin requests using Flask-CORS and managed database migrations with Flask-Migrate
- Integrated NextJS server-side routing to reduce initial page load time
- Optimized queries with SQL Alchemy, leveraging in-memory storage for faster development

### Auto Service | *React, NextJS, Python, Flask, SQLite, SQL Alchemy*

Sep 2023 – Oct 2023

- Optimized table components for teammates, reducing front-end development time by 20%
- Developed RESTful endpoints using Flask, enabling user management and authentication with Flask-Login
- Styled the application using Tailwind for reusable components, adhering to ADA compliance
- Fostered collaboration and improved code quality by leading code reviews and standups

### Reddit Clone | *JavaScript, React, Reddit API, Local JSON*

Jul 2023 - Aug 2023

- Implemented custom sorting functionality using quicksort and various array methods
- Utilized local JSON for data storage, storing public API data to simulate backend functionality
- Enhanced data management and interactivity by implementing CRUD functionality for data rendering

## LEADERSHIP

### Undergraduate TA | *Statistics, Chemistry*

Jan 2021 - May 2023

- Provided one-on-one guidance and academic support to students, helping students gain a better understanding of concepts on assignments and exams
- Provided frequent feedback and fostered open communication with students

## EDUCATION

### Flatiron School

*Software Engineering Bootcamp*

Manhattan, NY

2023

### Stony Brook University

*Bachelor of Science in Biology*

Stony Brook, NY

2023