Sai Akhilesh Tulluri

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EDUCATION

Northeastern University

Boston, MA, United States

Master of Science in Computer Science

Sep 2024 - May 2026

Coursework: Programming Design Paradigms, Computer Systems

Vellore Institute of Technology

Andhra Pradesh, India

Bachelor of Technology in Computer Science and Engineering (CGPA: 9.03/10.0) Coursework: Data Structures & Algorithms, Web Development, Database Systems Aug 2020 - May 2024

EXPERIENCE

Incoming Graduate Teaching Assistant

Sep 2024 - Dec 2024

Khoury College of Computer Sciences, Northeastern University

Boston, MA, United States

• Incoming Teaching Assistant for CS4500 Software Development course under the guidance of Dr. Matthias Felleisen and Dr. Benjamin Lerner.

Software Engineering Intern

Jan 2024 – Apr 2024

Jarobe Labs | Next.js, TypeScript, PostgreSQL, Vercel

Jackson Center, OH, United States (Remote)

- Engineered a GitHub App and web platform for a cutting-edge developer tool designed to enhance organizational security using GitHub.
- Integrated the Web Authentication API to implement a critical security feature, enabling two-factor authentication (2FA) for GitHub Pull Request approvers.

Software Engineering Intern

May 2023 – Aug 2023

DigitalFortress | Python, Django REST Framework, MySQL, AWS

Andhra Pradesh, India

- Enhanced the Point of Sale (POS) system's sales dashboard API latency by 50% through SQL query optimization, refining inefficient queries and reducing unnecessary database lookups.
- Orchestrated a robust CI/CD pipeline to automate unit tests, build Docker images, and deploy to GitHub Container Registry; streamlined updates with Watchtower on AWS EC2 and optimized backend API delivery using Nginx.

Software Engineering Intern, Platform Team

Nov 2020 – Apr 2022

eFuse | Node.js, Next.js, Redux, TypeScript, Python, MongoDB, AWS

Columbus, OH, United States (Remote)

- Mitigated potential data exfiltration and IDOR attacks by identifying and remediating at least three critical security vulnerabilities in backend API endpoints.
- Enhanced user experience in low-bandwidth areas by improving gaming video content delivery through the integration of Cloudflare Stream and HLS video format.
- Led the initiative to connect over 150,000 gamers across 100+ communities with esports internships, scholarships, and more, leveraging eFuse's API through the development of a Discord bot.
- Improved code quality and reduced production errors through the standardized migration to TypeScript, implementation of Cypress integration testing, and establishment of a CI pipeline for eFuse's frontend.

PROJECTS

 $\textbf{VTAPP - Event Platform} \mid \textit{Next.js}, \textit{MySQL}, \textit{Airtable}, \textit{Cloudflare pages} \\$

GitHub | Demo (Feb 2024)

- Developed a user-friendly web platform for a technical fest using Next.js, MySQL and Drizzle ORM (5k+ users).
- Integrated QR-code based ticketing system & Airtable spreadsheets, enabling easier event management (**generated** 50k+ tickets for 80+ events) and deployed to serverless environment on Cloudflare.

Restaurant Monitoring - API | FastAPI, PostgreSQL, SQLAlchemy, SQLModel, Redis

GitHub (Jun 2023)

- Built a robust monitoring API to generate restaurant uptime/downtime reports for 10k+ stores.
- Implemented an efficient algorithm for calculating store's uptime/downtime. Utilized Redis and Python-Arq to asynchronously handle report generation. Achieved a benchmark of 155 seconds for processing 14,000 stores.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Java, C

Frameworks: Flask, FastAPI, Django, Express.js, React.js, Next.js, Redux, Webpack

Databases: PostgreSQL, MySQL, SQLite, MongoDB, Redis

Other Tools: Amazon Web Services, Microsoft Azure, Cloudflare, Docker, Git & GitHub, Linux/Unix