

Aman Chadha

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SUMMARY

Full-stack developer with 3+ years of experience building scalable web applications using Laravel, FastAPI, React, and modern JavaScript. Skilled in backend API design, frontend interfaces, and database management. Proven track record contributing to open source projects, including bug fixes and test improvements in jQuery. Passionate about clean, modular code and collaborative development in diverse teams.

SKILLS

- Programming Languages: C, C++, React Native, Laravel, PHP, Python, FastAPI, NodeJS, React, JavaScript | ES6, jQuery, Go
- Databases: MySQL, MongoDB, MS Access, PL/SQL
- Tools and IDE: Selenium, Jest, Mocha, Jupyter Notebook, Bootstrap, REST APIs, GraphQL
- Monitoring and Infrastructure Tools: Grafana, Prometheus, Ansible and Docker

PROFESSIONAL EXPERIENCE

Supreme Court Bar Association of India

06/2022 – present

Developer

- Architected and developed a **scalable CRM system** supporting 20,000+ users, featuring secure authentication and modular backend architecture, improving administrative efficiency by 40%.
- Built an **election module** to verify voter eligibility and a **receipt generation system** integrated with Tally ERP for streamlined accounting.
- Designed and implemented a **real-time dashboard** with SMS OTP and email verification, enabling members to check dues and update contact info securely.
- Implemented **server monitoring with Grafana and Prometheus**, providing real-time insights into server health and application performance, reducing downtime.
- Deployed the application on a **Linux VPS**, handling Apache configuration, SSL setup, and ensuring optimal performance under high concurrent loads.
- Set up automated **server health checks and backups**, maintaining system reliability for thousands of users.
- Optimized database queries and implemented **caching mechanisms** to significantly improve application responsiveness.
- Containerized backend services with Docker to ensure consistent development and deployment environments.
- Automated SSL certificate renewal using **Ansible** and **Certbot**, ensuring seamless HTTPS availability without manual intervention.

ZapBytes

12/2021 – 05/2022

Python Intern

- Developed a modular Python API to parse KML files into JSON, enabling structured network data analysis across systems.
- Integrated geospatial logic with Shapely to assess coverage feasibility by coordinates, supporting automated backend decisions.


GITHUB CONTRIBUTION

AI-Powered Contextual Translation System – Sugar Labs / Music Blocks (Ongoing)

- Contributing to **Sugar Labs** by building an AI-assisted translation pipeline for **Music Blocks**, an educational open-source software.
- Focused on **context-aware translation** by generating **dynamic context descriptions** of UI strings using **Retrieval-Augmented Generation (RAG)** with **Ollama Qwen models**.
- Integrated **DeepL API** for **smart, high-quality translations** tailored to the actual software usage context.
- Automated **translation file updates** (.po to .json) and implemented **i18next fallback logic**, significantly reducing manual translation effort.

- Aimed at improving translation accuracy, minimizing AI hallucination risks, and providing **fallback options to human translators** for improved localization quality.

jQuery Library

Contributed to **jQuery** #5523  by resolving a bug in the `jQuery.event.special.remove` handler that caused elements to be skipped during cleanup when a component removed itself from the DOM. Fixed the issue by converting a live `NodeList` to an array before cleanup, ensuring all elements are properly processed. Authored unit tests to verify the fix and improve test coverage for DOM cleanup scenarios.

EDUCATION

Delhi University

2019 – 2022

Bachelors of Science, Computer Science (Hons.)

CGPA, 8.0

Relevant Courses: Data Structure and Algorithms, Linux, Database Management System, Object Oriented Programming (Java), Computer Networking