Bhargava Penumetcha

Senior Software Engineer with around **5 years** of experience in distributed systems and backend development. Expert in designing cloud-native micro services using **Fast API**, **Node.js**, **kubernetes**, and **AWS**. Passionate about system design and building scalable, maintainable, and cost-efficient architectures.

+91-9704128358   bhargavapenumetcha49@gmail.com   **GitHub**   **LinkedIn**   **Leetcode**

EDUCATION

Jawaharlal Nehru Technological University (JNTUK)

Jun 2016 - feb 2021

B.Tech in Electronics and Communication Engineering

SKILLS

- **languages**: Python, Javascript, Ts, SQL, Bash.
- **Frontend**: Vue.js 3, React.js, HTML5, SCSS.
- **Backend**: FastAPI, Node.js, REST APIs, GraphQL, Redis, WebSockets, Microservices.
- **Database**: PostgreSQL, MySQL, DynamoDB.
- **Cloud & DevOps**: AWS (Lambda, EC2, SQS, ECR, API Gateway), Docker, Kubernetes, GitHub Actions.
- **Other**: System Design, CI/CD, Agile/Scrum, Git, Jira

PROJECTS

Amoura   Jul 2025 - Present

Full-Stack Microservices Application

- Developed a scalable full-stack app with **Vue.js frontend, Node.js & TypeScript backend, and FastAPI WebSockets** server for real-time features.
- Leveraged **Redis** for message handling and deployed all services **Dockerized on a Mac Mini M4**, supporting **4,000–5,000 concurrent users**.

Mopy   Oct 2025 - Present

Clipboard Management Chrome Extension

- Developed a privacy-focused **clipboard manager** using **Manifest V3**, **React** enabling users to securely store, search, and reuse text snippets.
- Implemented features like **masked sensitive content**, **instant copy** shortcuts, and **secure local storage** with zero network calls.

TruPasion   Nov 2022 - Present

Developer Community & Learning Platform

- Founded a small developer group to **share ideas, solve problems, and implement learning projects**.
- Created several mini-apps such as **Tic Tac Toe, Calculator, Blog Appllication**, focusing on **practical implementation and skill development**.
- Encouraged **collaboration and peer learning**, fostering hands-on experience with full-stack development concepts.

EXPERIENCE

Senior Software Engineer   HCA, Hyderabad
                                     May 2025 - Oct 2025

- Architected the migration of core monolith services to a distributed **microservices architecture** on Kubernetes, improving scalability and resilience.
- Designed and deployed a **centralized authentication service (Auth Server)** implementing secure JWT/OAuth-based access across all application micro-services.
- Owned **end-to-end development** of containerized Python services (Auth Server, Surgery Server) from design to deployment on Kubernetes clusters.

Software Engineer 3   Factset, Hyderabad
                                     Apr 2022 - May 2025

Data Navigator (Client-Facing Web App)

- Modernized a client-facing web application from scratch using **Vue 3 & Fusion UI**, enabling clients to test and bundle financial datasets efficiently.
- Integrated internal APIs and implemented **role-based access control (RBAC)**, reducing client setup time by **30%**.
- Enhanced user personalization through persistent data tracking and optimized product selection flows.

Cornerstone (Job Scheduler & Cloud Migration)

- Led **UI migration** from Angular to Vue.js, introducing drag-and-drop functionality and parallel activity execution for enhanced user experience.
- Refactored backend from legacy Perl to **Python FastAPI microservices**, improving maintainability, scalability, and developer productivity.
- Reduced infrastructure costs by **migrating workloads to AWS Lambda** and data to **DynamoDB**.
- Built an automated account deletion pipeline using Python, Docker, AWS Lambda, SQS, and CloudWatch, achieving **99.9% operational efficiency**.
- Participated in on-call rotations as part of an Agile team, ensuring 24/7 reliability and rapid incident resolution.

Programmer Analyst   cognizant, Chennai
                                     Feb 2021 - Apr 2022

- Created Python automation scripts to process financial reports using **Pandas**, **NumPy**, and OCR libraries — accelerated processing by **60%.**
- Developed GUI automation tools with **PySimpleGUI** that eliminated manual entry, reducing human error significantly.