

# Pawan Bhandarkar

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## Education

### Carnegie Mellon University

Mountain View, CA

*Master of Science in Software Engineering; GPA: 4.0/4.0*

*Dec 2023*

**Courses :** Cloud Computing, Foundations of Software Engineering, Software Verification & Testing, Data Science

### NMAM Institute of Technology

Nitte, India

*Bachelor of Computer Science; GPA: 9.8/10 (top 1%, Class of 2020)*

*Apr 2020*

**Courses :** Data Structures & Algorithms, Object Oriented Modelling & Design, Operating Systems, RDBMS

## Skills

**Languages :** JavaScript, TypeScript, Python, Java, C++, C#, Go, GraphQL

**Tools :** AWS, ActiveMQ, Azure, Docker, Kafka, Redis, Terraform, Kubernetes, Linux, gRPC, New Relic

**Frameworks :** React v16+, Flask, PostgreSQL, Flutter, Redux, NodeJS, Express, MongoDB

**Soft Skills :** Communication (verbal and written), Leadership, Collaboration, Mentorship

## Experience

### TuneIn Radio

San Francisco, USA

#### *Software Engineer Intern, Platform*

*Jun 2023 - Aug 2023*

- Thrived in a fast-paced environment, pioneering subscription-based APIs via WebSockets through Test-Driven Development on the GraphQL API gateway backed by microservices using gRPC communication in Go
- Built data communication pipelines using Apache ActiveMQ and Redis Streams (AWS ElastiCache)
- Wrote comprehensive test suites and load-tested the microservice to ensure production-readiness
- Deployed microservices with Infrastructure as Code using Terraform and Kubernetes and monitored them using New Relic
- Expanded the C# (.Net core) monolith codebase with support for live streaming metadata for over 120,000 radio stations
- Collaborated with Product and Data Engineering teams to plan and prioritize related Jira tickets

### Team AIBOD Inc.

Fukuoka City, Japan

#### *Software Engineer 2*

*Nov 2021 - Apr 2022*

- Led the development of a payment microservice with Python, Flask, and PostgreSQL with HTTPS/SSL for enhanced security
- Engineered a full-stack information management system using Python, SQL, GraphQL, and React v16
- Developed a component library with React v16, CSS, and TypeScript for an unmanned store
- Deployed applications using Docker and AWS (ECR + ECS) and configured CloudWatch for monitoring

#### *Software Engineer 1*

*Feb 2020 - Oct 2021*

- Reduced total API calls by 30%, enhancing app functionality and contributing to business scalability
- Integrated 30+ REST APIs leveraging API docs and Postman, resulting in enhanced app functionality
- Created a Python script and a Tkinter-based GUI-tool for annotating and visualizing images, increasing data pre-processing rate from 20 to 200 images/hour and improving team productivity
- Set up a Jenkins pipeline for CI/CD and supported DevOps with AWS (ECR, ECS, S3 and AWS Fargate)

## Projects

### [Kanban Task Manager](#) | *React, EC2, ECR, Docker, NodeJS, MongoDB*

*Jan 2023 - Present*

- Developed a responsive web app with pixel perfect user interfaces based on Figma designs. Used Client-Server architecture with dynamic theming and drag-and-drop UI, focussing on A11y, ARIA and Semantic HTML. Deployed to AWS EC2 using Docker and ECR with a CI/CD pipeline using Github Actions. Handled security with HTTPS/SSL on the AWS Load Balancer

### [Incident Response](#) | *React, CloudFront, Docker, Socket.IO, MongoDB, Jenkins*

*Feb 2023 - May 2023*

- Led the frontend development of a mobile-first communication platform for citizens and first responders during emergencies. Used Ant Design, Figma and Storybook for the UI, refactored the codebase and advised the team on best practices of UI development and accessibility. Deployed the app to S3 using Jenkins and CloudFront

### [Emergency Social Network](#) | *HTML, CSS, TypeScript, NodeJS, MongoDB*

*Aug 2022 - Dec 2022*

- Built an emergency communication system for real-time SOS messaging during earthquakes with an MVC architecture. Utilized SCRUM and Kanban agile practices, object-oriented analysis (OOA) and test-driven development (TDD) in a fast-paced environment to create a user-friendly system with JSON-based RESTful APIs

## Awards & Leadership

**Teaching Assistant :** Demonstrated strong leadership and team collaboration skills as a Graduate Teaching Assistant for three courses: Foundations of Software Engineering, Software Requirements & Interaction Design and Introduction to Graduate Studies

**Student Leader :** ECE Graduate Organization (CMU - Fall 2022)