

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

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

**Frameworks :** ReactJS, Flutter, Redux, NodeJS, Express, MongoDB, Flask, PostgreSQL

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

## Experience

### TuneIn Radio

San Francisco, USA

#### *Software Engineer Intern, Platform*

*Jun 2023 - Aug 2023*

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

- Developed a component library with ReactJS, CSS, and TypeScript for an unmanned store
- Deployed applications using Docker and AWS (ECR + ECS) and configured CloudWatch for monitoring
- Engineered a search system using Python, SQL, GraphQL, and ReactJS for Kyushu Electric
- Led end-to-end development of a payment microservice with Python, Flask, and PostgreSQL with HTTPS/SSL for security

#### *Software Engineer 1*

*Feb 2020 - Oct 2021*

- Reduced total API calls by 30% by implementing Redux for simplified state management on the frontend
- 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 | ReactJS, AWS, Docker, NodeJS, MongoDB*

*Jan 2023 - Present*

- Developed an accessible, responsive Kanban Task Manager using Client-Server architecture with dynamic theming and drag-and-drop UI. 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 | AWS, Docker, ReactJS, Socket.IO, MongoDB, Jenkins, Jira*

*Feb 2023 - May 2023*

- Developed a communication platform for citizens and first responders during emergencies using Express.js, Socket.IO, and Mongoose. Refactored codebase and managed development in a scrum-of-scrums setting. Deployed the app using Docker, Jenkins, and AWS.

### *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

**Graduate Teaching Assistant :** Software Requirements & Interaction Design (CMU - Fall 2023)

**Graduate Teaching Assistant :** Foundations of Software Engineering (CMU - Spring 2023)

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