Pawan Bhandarkar

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EDUCATION

Carnegie Mellon University   **Mountain View, CA**
Master of Science in Software Engineering; ***GPA: 4.0/4.0***   *December 2023*
Courses : Foundations of Software Engineering, Software Verification & Testing, Data Science for Software Engineering

NMAM Institute of Technology   **Nitte, India**
Bachelor of Computer Science; ***GPA: 4.0/4.0***   *April 2020*
Courses : Data Structures & Algorithms, Object Oriented Modelling & Design, Software Architecture, DBMS

EXPERIENCE

Team AIBOD Inc   Fukuoka City, Japan
Software Engineer II   *Nov 2021 - Apr 2022*

- Led end-to-end development of a payment microservice with Python, Flask, and PostgreSQL, using Swagger for API design and implementing security (HTTPS/SSL), improving scalability and promoting reuse across 3 projects
- Developed a component library with React, CSS, and TypeScript for an unmanned store, enhancing accessibility through an intuitive interface, accelerating UI development, and streamlining the overall process
- Actively containerized and deployed applications utilizing Docker, configured AWS CloudWatch for remote monitoring across 5 unmanned store locations, effectively ensuring streamlined and efficient operations
- Streamlined 3 ongoing projects by engineering a Search System using Python, SQL, GraphQL, and React, styled with TailwindCSS, resulting in faster and a more efficient data retrieval

Software Engineer I   *Jul 2020 - Oct 2021*

- 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
- Integrated 30+ REST APIs leveraging API docs and Postman, resulting in enhanced app functionality
- Set up a Jenkins pipeline for CI/CD and supported DevOps with AWS (ECR, ECS, S3 and AWS Fargate)
- Reduced total API calls by 30% by implementing Redux for simplified state management on the frontend
- Introduced unit and integration tests with Jest, improving team efficiency and reliability with over 80% coverage

Data Science Intern   *Feb 2020 - Jun 2020*

- Applied Feature Engineering, boosting KNN-supervised classifier accuracy by 7%, resulting in effective classification of products in an unmanned store
- Led research efforts for BERT with PyTorch to automate support request routing in an apartment intercom system by recognizing named entities and integrating it with the Express API Server to provide AI as a Service
- Resolved more than 20 bugs in the NodeJS (TypeScript) API server, resulting in increased stability and server performance, also contributed to ongoing full-stack applications

PROJECTS

Incident Response | *AWS, Docker, React, Socket.IO, MongoDB, Jenkins, Jira*   *Feb 2023 - Present*

- 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

SKILLS

Languages	: Python, GraphQL, JavaScript, TypeScript, HTML5, CSS3, Java, C++, SQL
Frameworks	: ReactJS, NodeJS, Pytorch, Tensorflow, Redux, Express, NextJS, Flask, MongoDB, PostgreSQL
Tools	: Jenkins, Docker, AWS, Swagger, Postman, Figma, Storybook, Git
Practices	: Scrum, Kanban, Continuous Integration, Code Reviews, Test-Driven-Development

LEADERSHIP

Graduate Teaching Assistant : Mentored student Project teams on Software Engineering Principles and Practices for the Foundations of Software Engineering Course at Carnegie Mellon University

Student Leader : ECE Graduate Organization at Carnegie Mellon University (Among 160 students)