Pawan Bhandarkar

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Education

Carnegie Mellon University — Mountain View, CA
*Master of Science in Software Engineering; **GPA: 4.0/4.0*** — *Aug 2022 - Dec 2023*
Courses : Foundations of Software Engineering, Software Verification & Testing, HCI & UX, Data Science for Software Engineering

NMAM Institute of Technology — Nitte, India
*Bachelor of Computer Science; **GPA: 9.8/10** (top 1%, Class of 2020)* — *Jul 2016 - Apr 2020*
Courses : Data Structures & Algorithms, Object Oriented Modelling & Design, Linear Algebra & Probability Theory

Skills

Languages : Typescript, JavaScript (ES6+), Python, SQL, NoSQL, HTML5, CSS, XML, JSON, GraphQL, Java, C++
Modern Tech Stacks : React, NodeJS, Flask, PostgreSQL, Express, Bootstrap, Redux, Styled-Components, MongoDB, Sass
Tools : Figma, Version Control, Docker, AWS, S3, Postman, VSCode, Git, Miro, Jama, UNIX/Linux
Soft Skills : Communication (verbal and written), Leadership, Collaboration, Mentorship

Experience

Team AIBOD Inc. — Fukuoka City, Japan
Software Engineer 2 — *Nov 2021 - Apr 2022*
- Developed a comprehensive component library with **React and Typescript** for an unmanned store, enhancing accessibility through user centered interfaces, accelerating UI development and streamlining the overall development process
- Led the end-to-end development of a **RESTful** payment server leveraging **Python, Flask**, and **PostgreSQL for CRUD operations**, resulting in the expansion of customer base, contributing to ∼¥500K increase in annual revenue.
- Containerized and deployed applications using **Docker**, and set up **AWS Cloudwatch** for remote monitoring of unmanned stores across 5 customer locations, ensuring smooth and efficient operations.
- **Mentored 3 interns** from IIT Hyderabad, promoting technical and professional growth in a collaborative environment.

Software Engineer 1 — *Jul 2020 - Oct 2021*
- Created a **Python script** and a GUI-tool using **Tkinter** for annotating and visualizing images, increasing the data pre-processing rate from 20 to 200 images/hour and enhancing team productivity.
- Designed and implemented a Search System using **GraphQL** with **Apollo** and **Ariadne**, streamlining 3 ongoing projects.
- Introduced **unit and integration tests** with **Jest** which improved team efficiency and reliability with over 80% coverage.

AI Engineer Intern — *Feb 2020 - Jun 2020*
- Applied **Feature Engineering** to improve the accuracy of a **KNN-supervised classifier** by 7%, resulting in more effective classification of products in an unmanned store.
- Experimented with **BERT** using **PyTorch** for **Named Entity Recognition** to automate support request routing in an apartment intercom system and integrated it with the **Express API Server** to provide AI as a Service.
- Expertly resolved more than 20 bugs in the API server using **NodeJS and Typescript**, resulting in improved stability and performance of the server, also contributed to ongoing full-stack applications.

Projects

Emergency Social Network | *HTML, CSS, TypeScript, NodeJS, MongoDB* — *Aug 2022 - Dec 2022*
- Built a emergency communication system for real-time SOS messaging during earthquakes. Utilized **SCRUM** and **Kanban** agile practices, **object-oriented analysis (OOA), object-oriented programming (OOP) concepts** and test-driven development in a fast-paced environment to create a highly user-friendly system with **JSON-based RESTful APIs.**

Kanban Task Manager | *React, NodeJS, Styled-Components, Figma* — *Jun 2022 - Present*
- Developed a highly accessible Kanban Task Manager using **Client-Server** architecture with **React Hooks** and **Context API** focussing on **A11y, Semantic HTML, and ARIA labels**, which ensured usability with screen readers such as Apple Voice-Over. Generated clear API documentation with **API Blueprint** and **Postman.**

Re:use | *React, Typescript, NodeJS, MongoDB, Figma, Jama, Miro* — *Aug 2022 - Dec 2022*
- Led the development of the **MVP** for a Resource Management application in the donation industry by generating style guides in **Figma**, and converting user requirements into working software using the **MERN** Stack.

Refriendo | *TypeScript, React, CSS, Figma, Git* — *Oct 2021 - Jul 2022*
- Implemented a cross-platform Event Management Application for both **Android** and **iOS** using **React** and **Ionic Capacitor**. Designed and iteratively improved the user interface through high-fidelity **Figma** prototypes and think-aloud usability testing surveys, resulting in a clean, visually appealing design aesthetic.

Awards & Leadership

Graduate Teaching Assistant : Foundations of Software Engineering at Carnegie Mellon University.
Student Leader : ECE Graduate Organization at Carnegie Mellon University (Among 160 students).