Dhruv Parthasarathy

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Education

Northeastern University, Boston, MA
Master of Science in Software Engineering Systems (GPA 3.8 / 4.0)   Expected August 2024
Object Oriented Design, Algorithms, Cloud Computing (AWS), Web Design and User Experience, Big Data Applications and Indexing

SSN College of Engineering, Tamil Nadu, India
Bachelors in Mechanical Engineering (GPA 8.2 / 10)
Finite Element Analysis, Fluid Dynamics, Strength of Materials, 3D Modeling and Simulation

Technical Skills

Languages and Databases: JavaScript, TypeScript, HTML, CSS, Java, Bash Scripting, MongoDB, MySQL, Redis
Frameworks: ThreeJS, D3, Kafka, Socket.io, NextJS, React, Redux, Angular, Node.JS, TypeORM, Flask, Jest, Express
Build Technologies: Git/Gitlab CI-CD**,** Docker, Webpack

Professional Experience

Running Tide – Verification Software, Portland, ME
Full Stack Developer – Co-op   May 2023 – December 2023
- Spearheaded the development of a **React reusable component library**, yielding a **20% reduction in development time** across projects within a monorepo, while also enhancing code reusability and maintainability
- Implemented **test-driven development (TDD) practices** for backend services, achieving a notable milestone of **100% test coverage**. This resulted in a **15% decrease in post-deployment issues** and an overall improvement in system reliability.
- Developed a reporting engine framework using **NodeJS**, **PhantomJS** and **Handlebars** libraries to automate report generation, **reducing time by over 99%**, from 5 hours to less than 1 minute
- Successfully migrated the front-end of the application from **ReactJS** to **NextJS, React Query** and **TypeScript**, resulting in a **reduction in development and deployment time by 30%**, while achieving enhanced performance and maintainability
- Created a map-based device tracking visualization using **MapboxJS**, to aid with real-time monitoring and geospatial analysis of IoT devices deployed in the ocean

Mu Sigma – Innovation & Development Labs, Bengaluru, India
Full Stack Software Developer   August 2019 – August 2022
- Led a 4-member team to deliver a **Java** based desktop tool (*muFlow*) to create and execute analytical workflows
- Spearheaded org-wide training for **100+ team leads** to increase muFlow's **adoption and usage across departments by 20%**
- Developed a **React**-based CPG product launch simulation app called Real Games, supplying valuable consumer insights to stakeholders through interactive maps (**Mapbox API**) and visual representation
- Led the design and development of the **Front-end** of a real-time pair trading **Angular** web application
- Reduced execution bottlenecks: **CPU Usage by 10%, Memory Footprint by 62% and App Load Time by 23%**
- Implemented **D3 and Three.js** based components to the app, enhancing its functionality and user experience, resulting in **10% increase in user interaction rate**

Leadership and Community Involvement

Mentor – Oasis, Northeastern University   September 2022 – Present
- Worked with 50+ undergraduate students to build software applications, develop their technical and networking skills through workshops, events, and industry connections
- Guide and support in software development best practices, project management, and team collaboration

Speaker – Northeastern University
- Conducted workshops on Front End Development at Northeastern University to help students gain practical knowledge and hands-on experience with the latest tools and techniques in the field