

# Dhruv Parthasarathy

Boston, MA | 412-450-7755 | parthasarathy.d@northeastern.edu | linkedin.com/in/parthasarathydhruv/  
leetcode.com/parthasarathydNU/ | github.com/parthasarathydNU

## Education

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**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

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**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

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**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

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**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