

Kamalanethra Arulmozhi

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EDUCATION

MS in Computer Science, Northeastern University, Boston, MA

May 2025

Coursework: Design Paradigms, Web Development, Algorithms, DBMS, Cloud Computing, HCI, Data Mining

GPA: 4.0

BTech in Information Technology, PSG College Of Technology, Coimbatore, India

April 2021

Coursework: Object-Oriented Programming, Advanced Data Structures, Software Engineering, Cloud Computing

GPA: 3.8

SKILLS

Languages: Java, Python, TypeScript, JavaScript, C, C++, C#, SQL, HTML/CSS

Frameworks & Libraries: Angular, React.js, Node.js, Express.js, .NET, Flask

Tools & Platforms: AWS, Visual Studio Code, JUnit, Jest, Postman, Git, Jira, Power BI, Figma

Databases: MySQL, MS SQL Server, MongoDB

Technologies: REST APIs, CI/CD Pipelines, Unix/Linux, Windows, macOS

PROFESSIONAL EXPERIENCE

Graduate Teaching Assistant – Software Development | Northeastern University

January 2024 – Present

- Conducted code reviews for object-oriented designs, mentoring 10–15 students to ensure adherence to programming principles and high-quality project outcomes.

Full Stack Developer Internship | Staples Inc, Boston, MA

May 2024 – August 2024

- Developed and maintained customer-facing software applications using **Angular and Java**, enhancing user experience.
- Designed and implemented an AI-powered chatbot using **OpenAI API and Python (Flask)**, reducing customer query resolution time by **58%**.
- Conducted usability testing and collaborated with an agile team to refine web applications, focusing on UI design and REST API integration.

Software Engineer | Robert Bosch, Coimbatore, India

July 2021 - June 2023

- Led the development and management of specialized web applications using **React and C#**, **.NET**, implementing **CI/CD pipelines** for automated testing and deployment, reducing deployment time by 40%, ensuring efficient and seamless software delivery.
- Integrated Power BI APIs into web applications, improving reporting capabilities and boosting application performance by 25%.
- Administered the database and **enhanced query optimization**, leading to a 21% improvement in the application's overall performance.
- Collaborated closely with Product Owners in **Agile Methodology** to gather requirements, ensuring alignment with business objectives, and resolved critical issues, maintaining a 99% uptime, and ensuring smooth application functionality.

Software Developer Internship | Samsung Research Institute, India

January 2020 - August 2020

- Designed an intuitive **Angular-based interface** to streamline system configuration modifications, improving usability and operational efficiency.
- Implemented a Java backend to support efficient data processing and facilitate real-time communication within applications, adhering to **REST API** standards.

PROJECTS

Image Manipulation and Enhancement Application | Java, MVC, Junit

October 2023 – December 2023

- Developed a robust Java-based Image Manipulation and Enhancement Application, incorporating JUnit and adhering to the MVC Design Pattern, applying strong object-oriented design principles.
- Implemented advanced image manipulation features, including compression, dithering, and color correction, showcasing a commitment to innovative capabilities, and achieving 100% test coverage using JUnit test suite.

Technical Event Management Web Application | ReactJS, NodeJS, ExpressJS, MongoDB

January 2024 - April 2024

- Created a responsive full-stack MERN web application facilitating streamlined event creation and registration.
- Integrated **Google Events API** to fetch and display similar technical events, enriching the user experience and expanding event discovery capabilities.

HouseMate | UI/UX Project, Figma

September 2024 –December 2024

- Designed an interactive Figma prototype for a chore delegation app, featuring task assignment, progress tracking, and analytics dashboards to promote fair workload distribution.
- Conducted comprehensive usability testing, leveraging A/B testing and usability studies to gather actionable feedback, and refined the design to enhance clarity, functionality, and task prioritization.