Parthasarathy Murugesan

| [Linkedin](#) | [GitHub](#) |

OBJECTIVE STATEMENT

- Dynamic software engineer with almost 4 years of experience and strong academic background in Computer Science. Specialized in Rest APIs, SPA, micro-services, with expertise in Python, JavaScript, Typescript SQL and Java (Spring Boot)

EDUCATION

Master of Science in Computer Science   **Jan 2022 - May 2024**

Northeastern University, Boston, MA

- GPA: 3.9
- Recipient of the Research Apprenticeship Award 2022
- Relevant Coursework: Algorithms & Data Structures, Cloud Computing, Web Development, DBMS

EMPLOYMENT EXPERIENCE

Software Engineer, Founding Team   **Aug 2023 - Jan 2024**

Bazar Enterprises (startup) | Thousand Oaks, CA

- Implemented interprocess communication between checkout, inventory, and billing services using RabbitMQ and Kafka, reducing latency by 30% (approximately 100ms)
- Optimized 10+ REST API endpoints across micro-services using Node (Typescript) and Django (Python) for product display and homepage with query tuning and Redis caching, reducing server load by 20%
- Integrated Shopify with internal systems to automate and streamline product listings, inventory management, and order processing resulting in 20% reduction in manual load

Software Developer, Intern   **May 2023 - Aug 2023**

Vertex Pharmaceutical | Boston, MA

- Collaborated with stakeholders to gather requirements and assisted in developing web applications for business and scientific teams using React, Python, SQLAlchemy, Django, PostgreSQL Server and Git
- Converted a monolithic Node.js app into microservices (Spring Boot for checkout, Node.js/Express.js for transactions, and Python/Django for inventory), reducing 15 EC2 instances to 5 Kubernetes pods on EKS with AWS ALB, cutting costs by 60% and enhancing scalability
- Implemented unit and end-to-end tests with Cypress.io, test containers, and Docker, increasing test coverage by 40%

Programmer Analyst   **Feb 2021 - Dec 2021**

Cognizant | Chennai

- Integrated Elastic-search with Spring Boot, achieving real-time updates within 200ms and enhancing user experience for transaction and user account management
- Utilized JUnit, Test Containers, and Spring Test for unit testing on the Spring Boot backend, identifying 15+ bugs, reducing testing overhead, accelerating feature releases by 2 weeks
- Optimized database operations for US Bank's personalized ad targeting services using SQL and graph-based DB for user linkage, improving ad targeting accuracy, resulting in a 30% boost in campaign effectiveness

Software Engineer   **Jan 2019 -Dec 2020**

Newton Cloud | Chennai

- Redesigned the credit node with React.js for financial products, boosting visibility and user traffic by 15%

- Developed and packaged 8+ Spring Boot and 20+ Node.js RESTful APIs by pair programming with colleagues and validated the APIs using Postman, enabling the frontend developers to access and integrate API functionalities in their workflow
- Revamped the EMI page for a major e-commerce client, using React Native for mobile apps and React.js for mobile and desktop sites, implementing advanced filtering and recommendations based on saved cards, leading to a significant increase in EMI plan adoption
- Developed REST APIs for notification and billing services, managed by AWS NLB, reducing server costs and improving scalability to handle 30% more user requests without performance degradation
- Conducted code reviews and managed version control with Git, maintaining high code quality and team collaboration

PROJECTS

Husky Hive Gig Portal   **May 2023 - Nov 2023**
- Developed using Swift and Objective-C, integrated OpenCV library.
- Utilized: React.js,Node.js, Firebase, Express.js, CSS, PostgreSQL, AWS(S3, CloudFront, Local Persistent Data, Caching, Cloud Storage, Python

Real-Time Interactive 3D-Graphics Portfolio   **Jan 2024**
- Developed using THREE.js for a 3D workspace with real-time animated models.
- Utilized: Python, Flask, Heroku, JavaScript, AJAX, THREE.js, HTML/CSS, Docker, GIT

SKILLS

Programming Languages: JavaScript, Java, Python, Typescript, HTML, CSS
Frontend Frameworks: React.js,, React Native, Electron.js, Next.js, D3.js, Three.js, Sass, Less, Redux
Backend Frameworks: Express.js, Flask, Node.js, Spring Framework
Database: PostgreSQL, MySQL, Redis, Aurora DB, MongoDB, Oracle DB, Cassandra
DevOps: AWS (S3, CloudFront, Route 53, EC2, ASG), Docker, Kubernetes, Jenkins, GitHub Actions CI/CD
Testing: Jest, Cypress, React Testing Library, JUnit, Test Containers
Tools: Figma, Git, Storybook, Webpack