Praveen Kumar Vijaya Kumar

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EDUCATION

Northeastern University — **Boston, Massachusetts, USA**
Master of Science in Computer Software Engineering | GPA: 3.9 — Sep 2024 - May 2026
Coursework: Concepts of Object-Oriented Design, Algorithms, Web Design, Enterprise Software Design, Cloud Computing

Sri Sivasubramaniya Nadar College of Engineering — **Chennai, India**
Bachelor of Engineering in Computer Science and Engineering **|** GPA 3.5 — Jul 2018 - May 2022

TECHNICAL SKILLS

Programming: Java**,** Python, JavaScript, SQL, Typescript, HTML, CSS
Frameworks: Spring Boot, JPA, Swagger, Junit, Hibernate, React.js, Mockito, Rest API, Microservices, Maven, Gradle, Agile
Databases: Relational (MySQL), NoSQL (MongoDB), AWS S3
Tools: AWS, Terraform, Git, GitHub, Maven, Docker, OpenAPI, Datadog, SonarQube, GitHub Actions, RabbitMQ, Shell script

EXPERIENCE

PTC Inc. — **Boston, MA, USA**
Software Developer Intern — June 2025- Aug 2025

- Resolved **20+ customer** complaints about slow CAD specification access by implementing **TypeScript/Angular UI** components with asynchronous data fetching using **Angular Promises**, achieving a **50% reduction** in search time, and improving UX performance
- Led the implementation of a **scalable** file naming system handling 1000+ CAD parts using **Java Spring Boot**, creating **REST APIs** to fetch metadata from **MongoDB** and **apply user-defined export naming rules**, reducing post-export file management by 80%
- Wrote Playwright E2E and JUnit integration tests, ensuring business workflows remained stable across deployments

Toyota Connected — **Chennai, India**
Associate Software Engineer — Jul 2022 – Jul 2024

- Created a connected mobility platform to enable **real-time** vehicle telemetry processing by implementing **10+ REST APIs** using **Java Spring Boot**, MongoDB, and asynchronous messaging with RabbitMQ, successfully handling 100k+ daily requests at 99.9% uptime.
- Eliminated monitoring blind spots in production systems by implementing **Datadog APM** with custom metrics, composite alerts, **webhook notifications**, and automated runbook triggers, reducing response time by 40% and preventing customer-facing outages
- Centralized scattered vehicle lifecycle data into an interactive **ReactJS** dashboard with real-time telemetry streaming, performance tracking, service analytics, and predictive analytics, enabling data-driven decisions for **20+ team** stakeholders
- **Collaborated** with a cross-functional team to design and implement a hybrid messaging architecture using **RabbitMQ** to optimize **microservices communication**, consolidating services to reduce operational costs by **$3,600/year**
- **Automated** manual data cleanup processes by building **cron-based schedulers** with batch deletion algorithms and cascade operations for invalid telematics requests, cutting database size by **15%** and saving **$5K monthly** in storage costs
- **Led code quality initiative** across **15+ repositories**, achieving **85% test coverage** with JUnit and Mockito, while eliminating **120+ critical vulnerabilities** identified by **SonarQube**

ThinkBig Software Solutions — **Chennai, India**
Web Developer Intern — Jan 2022 – Apr 2022

- Collaborated in **requirement gathering** sessions with cross-functional teams, and created **Figma** to design user interfaces
- Transformed Figma designs into 15+ reusable **React components** with hooks and **lazy loading**, reducing code duplication by **40%**

PROJECTS

GlucoLens | *Github*

- Built a **real-time** glucose monitoring platform integrating Dexcom CGM API with **Spring Boot**, **AWS Lambda**, **AWS EventBridge** scheduling, **MongoDB Atlas**, and reducing data retrieval latency through pagination and indexing strategies
- Implemented **React/TypeScript** frontend with Chart.js time-series visualizations, automated reporting, 7-day moving average predictions, and standard deviation alerts, enabling a real-time glucose tracking dashboard for diabetic patients.

Multi-Tier AWS Infrastructure Deployment with Terraform | *Github*

- Automated **AWS** cloud infrastructure setup using Terraform (HCL) for **EC2**, **VPC**s, **RDS**, **S3** buckets, and security groups while implementing **CI/CD** pipelines with **GitHub Actions** and **Shell scripting** and eliminating manual configuration errors
- Developed Spring Boot health check REST API with **Spring Data**/**MySQL** for deployment validation, configuring **AWS ELB** with **CloudWatch/StatsD** monitoring and **Auto Scaling Groups** for dynamic EC2 scaling based on real-time traffic

ACHIEVEMENTS

- Awarded "Best Employee of the Quarter" for proactively resolving critical vendor integration issues beyond assigned duties
- Served as ACM Student Chapter Membership Chairman, successfully orchestrated technical events with 700+ participants