

MANISH CHIKKAVADARAGUDI PRASANNA KUMAR

FULL STACK DEVELOPER

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EDUCATION

Northeastern University (GPA:3.68/4)

Expected Dec 2025

Master of Science in Software Engineering Systems

Boston, MA

- Relevant Coursework: Program Structures and Algorithms, Enterprise Software Design, Object-Oriented Programming and Design in Java, User Experience Design and Testing, Prompt Engineering and AI, Advanced Medical Devices Software Engineering

Vellore Institute of Technology (GPA:8.55/10)

May 2023

Bachelor of Engineering in Computer Science and Business Systems

Vellore, IN

- Relevant Coursework: Data Structures and Algorithms, Operating systems, Data Science, Modern Mobile/Web Applications, Cloud and Microservices, SDLC (Agile), Distributed Systems

TECHNICAL SKILLS

Programming Languages: Java, Python, JavaScript, TypeScript, C# **Automated Testing:** Jest, Selenium **Version Control:** Git
Front-end Dev: HTML5, CSS3, JSON, SASS, ReactJS, AJAX, Angular **Data Visualization:** Chartjs, CanvasJS **Design:** Figma
Back-end Dev: Spring Boot, RESTful APIs, Node.JS, Async IO, NestJS **Database & ORM:** SQL, NoSQL, MySQL, MSSQL
Certification: AWS Certified Cloud Practitioner (Nov '22 – Nov '25)

EXPERIENCE

Berkshire Grey

Jan 2025 – Jun 2025

Software Developer Co-op

Bedford, MA

- Built a UI feature for BG's robotic control system (HMI) in **React** that dynamically rendered layout and components based on Redux state driven by YAML configurations—allowing the interface to adapt across different setups.
- Developed a backend feature that processed robot-generated data via **gRPC** callbacks using **Python asyncio**, enabling real-time UI updates within an established large-scale codebase.
- Authored 50+ unit and integration tests with **Pytest** for key modules in active development; created reusable fixtures, integrated with **Jenkins CI**, and ensured Py2/Py3 compatibility.
- Worked extensively with **Docker** containers in a **Linux** environment using ROS1 and ROS2 for robotic systems.

Indian Space Research Organisation – (ISRO-ISTRAC)

Mar 2023 – May 2023

Software Engineer (Project Trainee)

Bangalore, IN

- Collaborated with a multidisciplinary team to develop a space debris tracking model in **MATLAB**, enhancing radar data processing.
- Designed automated **ETL** pipelines in **Python** for radar data ingestion and applied algorithms to optimize quality, achieving a 20% improvement in pass success and coverage through precise adjustments, showcasing strong analytical and problem-solving skills.

Papersdrop (VIT incubator)

Apr 2022 – Nov 2022

Full-Stack Development Intern

Vellore, IN

- Led development of a blogging platform for a VIT-incubated startup, enhancing search, SEO, and boosting visibility by 30%.
- Utilized **Flask** and **Python** to create **CRUD APIs** operations, integrating **MongoDB** for efficient data management, and contributed to designing UI pages later developed in **React**, ensuring a visually appealing blogging platform while writing clean code.

PROJECTS

Car Rental System | *Spring Boot, Hibernate, MySQL, HTML, CSS, Thymeleaf, JavaScript*

Feb 2024

- Developed an enterprise-level **Java EE** application independently, adhering to Object-Oriented (SOLID) design principles based on an **MVC** pattern, and implemented scalable Data Access Objects (**DAO**) with Hibernate ORM for robust database interactions.
- Resolved duplicate entries, simultaneous bookings, and schema design issues using unique constraints, transactions, and locking. Utilized Stored Procedures, normalization, indexing, and concurrency control to improve performance, scalability, and reliability.

Course Registration Portal | *Spring Boot, MVC, MySQL*

Dec 2023

- Created a user-centric portal enabling students and professors to efficiently manage courses, employing Java streams and lambda expressions to enhance search, filtering, and sorting features.
- Applied Singleton and Factory design patterns to streamline architecture, reducing code complexity by 30% and boosting maintainability. Developed optimized MySQL queries for smooth CRUD operations.