

# Srivathsan Ganesan

Software Engineer | Bachelor of Engineering (B.E)

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## Education

### PSNA College of Engineering and Technology

Bachelor of Engineering in Electrical and Electronics Engineering – **8.3 CGPA.**

**2019-2023**

## Skills

**Languages** - JavaScript, Typescript, C#, HTML5 and CSS3 (TailwindCSS).

**Frameworks** - Angular, React, Express JS, ASP.net MVC, ASP.net core and Web Sockets.

**Tools** – Figma, Docker, Git, Agile Development, MongoDB and Postman.

## Work Experience

### ROBIS - Motherson Automotive Technology and Engineering,

Software Engineer

**September 2022 – Present**

- Developed and Integrated **Fleet Management System** with **Web Sockets, ROS services, and Graphic Libraries**, adhering to industry standards for memory leak prevention. Currently serving customers.
- Developed user-friendly **Visual Programming UI** using **React JS**, reducing robot mission setup time by 70%, achieved through collaboration on a comprehensive **block-based programming language**.
- Integrated and improved debugging features such as **path formation, reservation view, and error states, enabling users to manage fleet through a user interface** on their tablets. Currently being used at site locations.
- Used the combination of **canvasJS and createJS** within the **Angular framework** to visually represent the states of robots, resulting in the creation of highly intuitive interfaces, Implemented **NgRx state management** for complex fleet data synchronization across 15+ UI components.
- Designed and implemented a customizable UI framework, ensuring seamless adaptation for **multi-fleet management**. This innovation achieved a 90% reduction in deployment time across diverse configurations.
- Developed server-side APIs using **NodeJS, ExpressJS, and MQTT** for seamless communication with VDA5050-compliant fleet management systems.
- Worked on C# applications for **WinForms, ASP.NET MVC and ASP.NET Core, integrating them with Siemens PLCs** and implementing server-side solutions for enterprise-grade logistics and simulation environments.

## Projects

### Fleet Management System,

ROBIS - Motherson Automotive Technology and Engineering,

- Developed a robust **Fleet Management System** using the **MEAN stack** (MongoDB, Express.js, Angular, and Node.js), streamlining the management of **Automated Mobile Robots (AMRs) and Automated Guided Vehicles (AGVs)** for various navigation tasks.
- Engineered **real-time fleet monitoring with interactive UI features**, utilizing **Angular** and **Web Socket** for efficient communication between AMRs/AGVs and the backend, ensuring seamless navigation and status updates.
- Designed and integrated **RESTful APIs using Express.js and Node.js** to facilitate smooth communication between the databases (MongoDB), fleet management system, and robot fleet operations, improving fleet efficiency and reducing operational errors.

### Robot Control System – RCS,

ROBIS - Motherson Automotive Technology and Engineering,

- Developed a Robot Control System using C# with **ASP.NET MVC and ASP.NET Core**, facilitating seamless communication between AGVs and Siemens PLCs, ensuring precise control and coordination of robotic tasks in industrial environments.
- Implemented a robust **WinForms-based Visual UI**, integrating with **SQL Server Management Studio (SSMS)** for real-time database interactions, enhancing the user experience for monitoring and managing AGV operations.