VIVEK PATIL

SOFTWARE DEVELOPER

IoT | AWS | Node.js | React.js

+91-9082222760 | *vivekpatil.5678@gmail.com*

https://www.linkedin.com/in/vivekpatilpv/

https://github.com/vivekpatilpv

SUMMARY

Dynamic **Software Developer** with 2+ years of expertise in **IoT**, **AWS**, **Node.js**, **React.js**, and **AI technologies** like **TensorFlow, Neural Networks**. Proven track record in delivering impactful solutions, including the **Connected Vehicle Platform** at **Tata Motors**, where I worked with senior leadership to enhance system reliability and develop innovative **PoCs**. Adept at building scalable, high-performance applications and driving cross-functional collaboration to achieve business goals. Passionate about leveraging technology to solve complex problems, with a particular focus on **AI/ML** for **predictive analytics** and system optimization.

EDUCATION

MIT Art, Design & Technology University, Pune

B.Tech Computer Science and Engineering – Intelligent Systems – 8.6/10.0 CGPA *2019 – 2023*

EXPERIENCE

Tata Technologies | Tata Motors (Client)

Solution Developer *(Jan 2024 – Present)*

- Worked on-site with senior leadership to enhance the Connected Vehicle Platform (CVP) Project, improving platform reliability by reducing outages by 15%.
- Delivered 5+ PoCs using IoT, AWS, Node.js, and React.js, including a full-stack telemetry app that cut data latency.
- Optimized RESTful APIs, boosting communication efficiency , and led predictive analytics integration with Tata Elxsi, increasing processing speed.
- Conducted performance benchmarking, improving system efficiency , and developed real-time diagnostics, reducing vehicle downtime.
- Authored technical documentation and trained teams, driving adoption of CVP solutions across departments.

Graduate Engineering Trainee - (GET) *(Jan 2023 – Jan 2024)*

- IoT Solutions Development: Contributed to the deployment of IoT-based connected vehicle solutions, focusing on scalability and cost-efficiency, which led to a reduction in operational costs for certain processes.
- Real-Time Diagnostics Application: Designed a cloud-native app for real-time diagnostics, reducing vehicle downtime by 20% through early fault detection and streamlined issue resolution.
- Team Enablement: Created detailed technical documentation and conducted training sessions for cross-functional teams, increasing platform adoption by across departments.
-

TECHNICAL SKILLS

- Programming Languages: **JavaScript, TypeScript, Node.js, React.js, Express.js**
- Databases: **PostgreSQL, MongoDB**
- Web Technologies: **HTML5, CSS3, TypeScript, React.js, Node.js**
- Cloud & DevOps: **AWS, CI/CD, Docker**
- Communication Protocols: **MQTT, HTTPS**
- IoT Tools: **ThingWorx, Grafana, Prometheus**
- Machine Learning & AI: **TensorFlow.js, Generative AI, Predictive Analytics**

PROJECTS

- **Connected Vehicle Platform (CVP)**

  Tata Motors | Tata Elxsi

  Technologies Used**: IoT, Node.js, AWS, React.js, ThingWorx, Grafana, Prometheus, MQTT**

  - Worked directly with Tata Motors and Tata Elxsi teams on the Connected Vehicle Platform (CVP), contributing to real-time monitoring and predictive maintenance for Tata Motors' fleet of connected vehicles.
  - Led the integration of IoT solutions and predictive analytics using AWS and ThingWorx to enhance vehicle health monitoring, reducing downtime by identifying potential issues before they occurred.
  - Collaborated with shop floor mechanics and ground-level teams to gather real-world data and optimize vehicle performance, ensuring the platform met both operational and user needs.

- **Engineering Service Design and Outsourcing (ESDO)**

  Tata Motors | Strategic Business Planning Department | Digital Product Development Solution Department

  Technologies Used: **TypeScript, React.js, Node.js, PostgreSQL, CI/CD**

  - Contributed to a high-impact project aimed at improving engineering services for Tata Motors. Involved in the entire project flow, from IPA and synopsis creation to commercial discussions, PO creation, and issuance.
  - Involved in milestone planning, commercial discussions, and Project Manager assignments, ensuring alignment with client needs and business goals.
  - Collaborating with Chief Engineers and other stakeholders to define technical specifications and scope for the project.
  - Designed and developed robust web applications with TypeScript and React.js, ensuring a responsive and user-friendly interface.
  - Leveraged Node.js for backend services, using PostgreSQL for data management and ensuring high availability and data consistency.
  - Implemented CI/CD pipelines to automate deployment processes, enhancing development speed and system reliability.

CERTIFICATION

- **Deep Learning Specialization**
- **Browser-based Models with TensorFlow.js**
- **DeepLearning.AI TensorFlow Developer Specialization**
- **Machine Learning Specialization**
- **Convolutional Neural Networks in TensorFlow**
- **Natural Language Processing in TensorFlow**

AWARDS & ACHIEVEMENTS

- Led a **team of 5** to victory in **CODE BREAK 3.0 '22**, competing with **300+ participants** at a **national-level hackathon**.
- Won in **KPIT NOVA Hiring Hackathon '22,** a national-level competition with 1000+ participants.
- Achieved recognition in **NSBEHacks 21'** (Canada), a global GitHub-sponsored-Category hackathon.
- Secured the GitHub-sponsored category win at **RU Hacks 21'** (Canada), a global hackathon.
- Won the GitHub Education Sponsored Category in **DandyHacks 20'** (New York, USA), a global hackathon.
- Awarded in the **Geekyants-sponsored** category at **React Day'21** (Bangalore).