# Sehwag Vijay

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## EDUCATION

**VIT University, Chennai** Aug 2021 – May 2025
Bachelor of Technology in Electronics and Communication Engineering (ECE)
Specialization: Artificial Intelligence & Machine Learning (AIML) GPA: 8.39/10

## RELEVANT COURSEWORK

- Prompt Engineering - Machine Learning - NLP - EDA

## EXPERIENCE

**Automation Engineer** Nov 2023 – Jan 2024
Tata Technologies Bengaluru

- Automated DTC code retrieval by sequentially sending UDS requests via an interactive GUI, streamlining diagnostic processes and enhancing user interaction with efficient code access.
- Reviewed codebase for quality assurance and adherence to industry best practices.
- Provided guidance and leadership, fostering a collaborative learning environment for new recruits.

**Machine Learning Intern** Oct 2023 – Nov 2023
Tata Technologies Bengaluru

- Established an AWS EC2 instance for a machine learning model utilizing the RandomForest Regressor algorithm to predict driver behaviour and assess driver risk scores.
- Developed a system to handle JSON-formatted driving data and encoded predictive outputs into the CAN frame format for reliable communication over vehicle CAN bus systems.
- Created a DBC file defining the structure of CAN messages for seamless integration into the IoT FleetWise Edge platform, advancing predictive modelling in vehicular technology and fleet management.

**GUI Intern (Front end developer)** Sept 2023 – Oct 2023
Tata Technologies Bengaluru

- Engineered a dynamic instrument cluster using PyQt5 for real-time vehicular data acquisition via UDP.
- Designed and developed a user-centric graphical interface showcasing vital vehicle metrics such as speed, RPM, fuel levels, and temperature readings.
- Implemented multi-threading for instantaneous updates, ensuring responsiveness and accuracy.
- Presented the project as a front-end interface at the ***ELIV 2023 conference, Germany***.

## PROJECTS

**Quantum Inspired Support Vector Machine** July 2024

- Developed a quantum kernel for SVM to diagnose multiple conditions using hematological data, handling complex, high-dimensional datasets and improving multi-condition classification.

**BERT-Based Job Description Classification and Skill Tagging** June 2024

- Engineered a BERT model to classify job descriptions and tag relevant skills, utilizing both real-world and synthetic resume data. Successfully deployed the model for operational use, enhancing the accuracy and efficiency of resume analysis.

**Telecom Customer Churn Analysis** Feb 2024

- Conducted Exploratory Data Analysis (EDA) and developed a predictive model to identify customer churn in the telecom industry, enhancing retention strategies based on model insights.

## TECHNICAL SKILLS

**Programming:** Python, Java, C
**Developer Tools:** GitHub, AWS-EC2, Docker, API, VS
**Machine Learning:** TensorFlow, PyTorch, NumPy, Pandas, Scikit-learn, Pennylane