# Tejas Vipin

SRM Institute of Science and Technology • Kattankulathur • Chennai, India

### Links

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in https://www.linkedin.com/in/tejas-vipin-b8788b24b/

• https://github.com/meltq

#### Skills

C\C++, Rust, Python, Linux Kernel, Device Drivers, Compilers, Embedded Systems, Machine Learning, Systems Engineering, NLP, LLM, Computer Vision, Transformers, Git

### **Experience**

#### Directorate of Student Affairs, SRMIST

Nov. 2022 - Aug. 2023

Web Developer

- The Directorate of Student Affairs organizes a national level cultural fest called Milan attended by thousands of people every year.
- Worked on the website of Milan 2023 along with the DSA tech team.
- Primarily contributed to the server and ticketing system of the website, along with integrating them with the frontend.

### **Open Source**

Linux Kernel Jun. 2024 - Present

Contributor to DRM subsystem

- The Direct Rendering Manager is a subsystem in the kernel that contains the code and drivers for managing graphics related hardware.
- Optimized several display panels that use MIPI DSI by reducing generated code size and improving the internal API.

LLVM Jan. 2025 - Present

Contributor to MLIR

- LLVM is a modular, open-source compiler framework designed to optimize and generate intermediate and machine-level code for a wide range of programming languages and architectures.
- Optimized MLIR generation for operations involving 0 dimensional vectors.

#### Misc

#### Jane Street Real Time Market Data Forecasting Competition

• Participated in a Kaggle competition involving prediction of the performance of high frequency trading algorithms used by Jane Street for Quantitative Trading.

• Came up with several different strategies of data processing and prediction to increase accuracy and speed.

### Crime Detection and Classification using Deep Learning

- Detected and classified different classes of crime using RNNs and Transformers.
- Came up with several different novel strategies of analyzing video data to increase inference speed and accuracy.
- Finalized and contrasted different competing cutting edge models to come up with a final model that outperforms all current existing models for this task.

## Education

### SRM Institute of Science and Technology

Kattankulathur, India

2022 - 2026