

Naveen Kumar

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Education

- **University of Tartu** Tartu, Estonia
Masters of Computer Science Aug 2024 - Present
- **Kongu Engineering College** Tamil Nadu, India
Bachelor of Engineering - Computer Science Jul 2016 - Jun 2020

Skills Summary

- **Languages:** Python, PHP, JavaScript, SQL
- **Frameworks:** TensorFlow, Keras, PyTorch, Scikit-Learn, Django, Laravel, Node.js
- **Tools:** GIT, PostgreSQL, MySQL, MongoDB
- **Platforms:** Linux, Web, Windows
- **Machine Learning:** Supervised Learning, Unsupervised Learning, Ensemble Methods

Projects

- **Multimodal Cancer Classification:** Implemented a pipeline based on the **Cascade of Experts** architecture that accepts image or CSV input. A compact router directs images to domain experts (Brain, Kidney, Pancreas, Skin) for fine-grained tumor classification, while CSV inputs are validated and routed to structured-data classifiers. Designed with modularity for production readiness, including clear contracts between router and experts, model versioning, and monitoring.
- **Grain Humidity Detection (Machine Learning):** Performed EDA, feature engineering, and implemented XGBoost, Random Forest, and Neural Networks to predict grain moisture levels.
- **Ticket Classification (Machine Learning):** Developed supervised ML model for classifying support tickets using preprocessing, TF-IDF, and ensemble methods.
- **Audio Separator (Python):** Built a Python program to separate vocals and instrumental tracks from audio files.
- **Plato - CRM Tool (Laravel Migration):** Migrated legacy Yii(1.0) system to Laravel(8), optimized DB for scalability, and implemented sales/lead management features.
- **Fish Farm IoT System:** Created an IoT dashboard for monitoring pH/temperature and automated alerts for critical thresholds.

Experience

- **Pickyourtrail** Jul 2021 - Aug 2024
Back-end Developer (Full-Time)
 - **Plato - CRM Tool:** Developed features like Sales Roster to track daily activities and customer interaction, ensuring continuity. Integrated with payment gateways (Razor Pay, Payu).
 - **NEO App - CRM Tool:** Built backend APIs for Mobile Applications handling lead management, customer tracking, and performance metrics.
- **Mobile Tutor Pvt** Dec 2020 - Jun 2021
Full Stack Developer (Intern)
 - **Library Management System:** Developed a complete library system for book tracking and user notifications.

- **Automatic Report Generation:** Built an automated report generation and communication system.
- **Adash Business Analytic**
Back-end Developer (Intern) *Jan 2020 - Nov 2020*
 - **ERP System:** Developed an internal dyeing ERP system handling finance, reporting, and user attendance.

Publications

- **Prediction of Adverse Glycemic Events:** Used TensorFlow and Python to predict glucose fluctuations.

Honors and Awards

- **Best Developer Award:** Received for outstanding contributions in software development (Jan 2022).

Volunteer Experience

- **National Cadet Corps - KEC** Tamil Nadu, India
I have volunteered as an NCC cadet and participated in various competitions and community services