Rohan Kailash B

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EXPERIENCE

• Ericsson India Pvt. Ltd. [\(\begin{aligned}
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Feb 2025 – July 2025

AI Research Intern

Bengaluru, Karnataka

- Evaluated impact of acronym obfuscation in QA retrieval using SBERT and multiple (pretrained, fine-tuned, and PT-FT) models; observed a 10–20% drop in accuracy depending on architecture and training stage.
- Presented "Investigating Continual Pretraining in LLMs", demonstrating perplexity reduction and improved downstream task performance; compared encoder-decoder vs decoder-only setups.
- Analyzed RAG vs fine-tuning trade-offs; read research papers related RAGAS which improves document retrieval precision by up to 20%.
- Coordinated 30+ speaker sessions at Ericsson Developer Conference 2025, ensuring seamless execution.

ZOHO Corporation [)

Aug 2023 - Nov 2023

Summer Internship – Software Testing Intern

Chennai, Tamil Nadu

- Developed and debugged backend components using Java and MySQL, enhancing core platform stability and query efficiency.
- Contributed to the alpha release of a BI app by fixing critical bugs, verifying feature completeness, and proposing 5+ UX features inspired by Zoho Analytics.
- Created 10+ diverse test datasets targeting edge cases and performance bottlenecks, improving overall test coverage and build reliability.

SKILLS

- Languages: Python, Java, SQL, HTML5, CSS3
- AI/ML Frameworks: Scikit-learn, TensorFlow, HuggingFace Transformers, SHAP, SMOTE, YOLOv8
- Data Processing & Visualization: Pandas, NumPy, Matplotlib, Seaborn
- Computer Vision: OpenCV, MediaPipe, Streamlit
- Tools & Platforms: Git, ROS Noetic, Arduino, Google Colab, Jupyter Notebook
- Database: MySQL

CERTIFICATIONS

Spoken Tutorial - Java, IIT Bombay

View Certificate
View Certificate

• Spoken Tutorial - Python, IIT Bombay

View Certificate

• Spoken Tutorial - MySQL, IIT Bombay

EDUCATION

Vellore Institute of Technology

2021 - 2025

BTech in Computer Science and Engineering (Specialization in AI and Robotics)

Chennai, Tamil Nadu

Modern Senior Secondary School

Grade XII: Computer Science Percentage

Graduated May 2021 Chennai, Tamil Nadu

PROJECTS

• Drone Guard March 2024

Tools: Python, Streamlit, TensorFlow, OpenCV



- Drone Map Stitcher and Image Segmentation in a Streamlit app for flood monitoring in disaster zones
- Developed a drone image stitching tool for generating comprehensive maps to aid disaster response.
- Built a custom-trained YOLOv8 model for water body segmentation and visualization.
- Displayed segmented water bodies with coordinates for precise flood monitoring.
- Designed the app to integrate into future **autonomous drone systems** for streamlined operations.

• Alzheimer's Disease Progression Prediction using MRI Biomarkers

Jan 2025 – Apr 2025

Tools: Python, Scikit-learn, SHAP, SMOTE, RFE

- Processed 5,000+ longitudinal MRI scans from the ADNI dataset; engineered delta-based biomarkers to capture neurodegenerative trends.
- Tackled severe class imbalance (68 vs. 2,000+ samples) using SMOTE and class weighting, improving minority class recall by 30%.
- Trained and evaluated **Random Forest, SVM, and Logistic Regression** models, achieving up to **92.3% accuracy** in predicting **pMCI** \rightarrow **AD progression**.
- Applied Recursive Feature Elimination (RFE) and SHAP analysis to reduce 300+ biomarkers to top 10 per class, boosting interpretability while maintaining >90% accuracy.
- Validated results via **10-fold cross-validation**; demonstrated **clinical relevance** of selected features for **early intervention and stability detection**.

EXTRACURRICULAR ACTIVITIES

VIT United Chess Team

2021 - Present

Team Member, ELO 1781

VIT Chennai

- Won a National U-1600 ELO chess tournament; represented VIT in the Collegiate Chess League, securing
 2nd place globally.
- Featured in VIT Chennai's **SCOPE** (School of Computer Science Engineering) Achievers List for international representation and tournament performance.

• Robotics Club 2023 – 2024

Member, AI Programming Track

VIT Chennai

- Co-organized multi-level Arduino + 3D printing workshops; collaborated across technical and marketing teams to drive 100+ student participation.
- Built and tested small-scale AI/robotics projects using OpenCV and ROS Noetic under faculty mentorship.