Paul Jose

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M.Tech in Computer Science and Engineering

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EDUCATION

- **M.Tech in Computer Science and Engineering** *Sept 2024 - Sept 2026*
  CGPA: 8.29/10 Mar Athanasius College of Engineering, Kerala
- **B.Tech in Computer Science and Engineering** *Aug 2018 - Aug 2022*
  CGPA: 7.43/10 APJ Abdul Kalam Technological University, Kerala

EXPERIENCE

- **NIT-Trichy** *June 2025 - August 2025*
  Research Intern Tiruchirappalli, Tamil Nadu
  - Conducting research on EEG signal classification for depression detection under the guidance of Dr. V. Sridevi, using real-world EEG datasets.
  - Designing and training deep learning models, experimenting with CNN and LSTM architectures to enhance classification accuracy and model robustness.

- **AT&T Communications India Pvt. Ltd.** *Nov 2022 - Nov 2023*
  Apprentice Network Engineer Bengaluru, Karnataka
  - Manage enterprise routers and switches over SSH, leveraging Unix commands for configuration and verification of network devices.
  - Develop shell scripts for automating device logging and write Python scripts to streamline configuration management across network infrastructure.
  - Collaborated on Layer 3/Layer 2 segmentation using BGP, OSPF, VLAN.

PROJECTS

- **Adaptive Handover Optimization in Open RAN** *GitHub*
  TensorFlow, TFLite, Python M.Tech Mini Project
  - Developed an ML-based adaptive handover model using LSTM on the Berlin V2X dataset for predictive handovers in 5G networks, achieving 86.67% accuracy.
  - Compressed the model using structured pruning and quantization, reducing size by 87% for real-time edge deployment in Open RAN environments.

- **Bayesian Deep Learning with EM-TDAMP** *GitHub*
  TensorFlow Probability, TFLite, Python M.Tech Micro Project
  - Engineered an uncertainty-aware MLP classifier, compressing it via quantization for embedded use. Recorded 92.77% accuracy on a 60,000-sample MNIST dataset, targeting safety-critical edge deployments (e.g., telecom anomaly detection).
  - Reduced model size by 50% (from 20MB to 10MB), enabling deployment on resource-constrained devices.

- **Student Performance Prediction** *GitHub*
  Scikit-learn, SMOTE, Python M.Tech Micro Project
  - Built an end-to-end ML pipeline with ETL preprocessing on a 10,000-student dataset; developed a dropout predictor using K-Means and SVM with 98.69% accuracy and integrated explainability features to highlight key dropout factors for improved stakeholder understanding.

- **CCTV Deployment Optimization** *GitHub*
  Python, PyQt5, ILP M.Tech Micro Project
  - Created a PyQt5 GUI tool for ILP-based camera placement, ensuring 100% area coverage with 28.6% cost savings in synthetic urban layouts.

TECHNICAL SKILLS

- Programming Languages: Python, Java, C, SQL
- Deep Learning: CNN, RNN, LSTM, Quantization
- Frameworks & Tools: TensorFlow, TFLite, scikit-learn, Keras, Pandas, NumPy
- Version Control: Git, GitHub

CERTIFICATIONS

- AI Builders Lab Internship, AccelerateX at M.A. College of Engineering — 2024
- Google Cybersecurity Professional Certificate, Coursera — 2024
- Introduction to Internet of Things, NPTEL Online Certification (Funded by MHRD, Govt. of India) — Score: 58 — 2022
- Python Full Stack Development, Pentagon Space Batch No.: PSO6DEC21PFS818 — 2022
- Architecting with Google Compute Engine Specialization, Google Cloud (Coursera) — 2021