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Prathyusha Mallela

Education

Mar 2025 **M.S. in Computer Science, Minor: AI, GPA: 3.67**, *Oregon State University*, Corvallis, OR

2018–2019 **PG Certification in IoT**, *BITS Pilani*, India

2008–2012 **B.E. in Electrical & Electronics Engineering**, *Visvesvaraya Technological University*, India

Summary

Software engineer with 8 years of industry experience, including 5 years specializing in backend Java development and scalable machine learning solutions. Proven track record in delivering high-impact, data-driven applications and cost-saving AI systems for global clients in energy and fintech. Adept at end-to-end project execution — from architecture design to production deployment — with expertise spanning fraud detection, causal inference, and cloud-native platforms. Currently on OPT with EAD; authorized for immediate U.S. employment. References available on request.

Experience

May 2023–Mar 2025 **Researcher**, *AI Group, OSU*, Corvallis, OR

- Built Causal Framework for supply chain analysis.
- Developed Temporal Causal Model; defined ripple/bullwhip effects.
- Applied counterfactual/intervention-based causal techniques.
- Validated using customized particle filter with dynamic sensor model.

Jul 2022–Oct 2023 **Salesforce Program Analyst**, *Oregon State University*, Corvallis, OR

- Conducted testing (unit, integration, UAT) of university applications.
- Triaged and resolved PoS system bugs.
- Enhanced usability by adding customizable PoS features.

2016–2020 **ML Software Engineer**, *Manipal Technologies Ltd*, Bengaluru, India

- Built client-specific fraud detection models (80% fraud capture).
- Developed Kohonen maps classifier (75.6% accuracy).
- Integrated neural network classifier (82% accuracy).
- Pre-processed/exported data with ETL Pentaho 5.1 for interoperability.
- Analyzed bank transaction datasets to extract predictive features (+75.6% accuracy).
- Built real-time data stats pipelines for feature scaling/pre-processing (28–32% training time reduction).
- Created GAN-based synthetic datasets for class balance (+40% accuracy); deployed to production.
- Developed GAN-driven rules for the rule-based system, reducing case managers' processing time and associated costs by 40%.
- Designed evaluation metrics for false positives (83% precision). Delivered cost savings exceeding ฿2 million for client TMB and ฿0.8 million for KTB client.

2013–2016 **Product Developer**, *MVR Info Systems*, Bengaluru, India

- Developed Smart Energy Alert System for network energy management.

Skills

Programming: Java (EE), Python Frameworks/Libraries: Spring Boot, Hibernate, Struts, PyTorch, OpenMP, Kafka, Spark, Scala Tools: AWS, Firebase, ETL Pentaho Databases: MSSQL, Oracle, IBM Db2, SOQL, JDBC ML: Deep Learning, NLP, Causal Inference, Data Mining, Feature Engineering, LangChain, LangGraph OS: Linux/Unix, Windows

Projects

Mar 2023 **Cryptic Crossword Solver**, *NLP with Deep Learning*

- Used T5 model + rule-based systems; 8.6% success rate.

2020 **Smart Identification System**

- IoT intruder detection with AWS & Firebase. With 100% success rate.