

PRAGATHI KANALA

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EDUCATION

Master of Science in Computer Science: 3.55/4.0 GPA (Current), May 2025

Florida Institute of Technology, Melbourne, Florida, United States

Relevant Coursework: Computer Information Security, Database Management, Computer Vision, Artificial Intelligence

Bachelor of Engineering in Electronics & Communication: 7.8/10 CGPA, August 2021 (Awarded Distinction)

PES Institute of Technology, Bangalore, Karnataka, India

Relevant Coursework: Programming in C and Data Structures, Analog Electronics, Digital Electronics, Network Analysis

CERTIFICATIONS:

- Have certification and hands-on experience in Cloud Fundamentals, AWS Cloud Content Management, and Apache Kafka from the Mphasis Limited platform.
- Gained Programming for Everybody (Getting Started with Python), University of Michigan, training from the Coursera platform.
- Attended training and have hands-on experience and certification on Restful web services, Java Microservices, Git, and DevOps Essentials from the Mphasis limited platform.

SKILLS

Programming languages: C, C++, Python, Java, Spring.

Web Services: Restful web services, Java Microservices, Git, DevOps Essentials, Cloud Fundamentals, Cloud Content Management, Apache Kafka.

Scripting Languages: Wireshark, PowerShell.

Web Technologies: HTML, CSS, JavaScript, jQuery, React.js, Node.js.

Databases: MySQL

Cloud and DevOps: AWS (EC2, S3, IAM, Lambda, RDS, VPC), Kubernetes (EKS, ECS), Docker, AWS CLI, CI/CD (CodePipeline, CodeDeploy).

Operating Systems: Linux, Windows.

Cyber Security: Privileged Account Management, Identity & Access Management.

Embedded Systems: Arm Cortex M3, Verilog, VHDL.

Simulators and Verification: Xilinx Vivado, MATLAB, Network Simulator 2, ARM Keil u, Vision Programming.

ACHIEVEMENTS

- Awarded first place by NA Global Law School for the 'Legal Literacy and Awareness Quiz'.

WORK EXPERIENCE

Mphasis Limited Software Engineer, September 2021-July 2023

Project Description:

- Developed a secure, high-performance banking platform integrating backend and frontend using Java, MySQL, HTML, CSS, and JavaScript.
- Built custom models and SAR (Suspicious Activity Report) forms to meet strict regulatory compliance.
- Contributed to RCT (Risk Management and Compliance Technology) for enterprise-wide risk detection and

reporting.

- Implemented Actimize AML-SAM for anti-money laundering (AML) and suspicious activity detection.
- Worked with AIS (Actimize Integrated Surveillance) and RCM (Risk Case Manager) to manage alerts and follow-up actions.
- Utilized Actimize Customer Due Diligence (CDD) for risk-based AML compliance and customer lifecycle management.
- Ensured end-to-end risk management, focusing on customer impact minimization and compliance through dynamic, risk-based processes.

Activities Performed:

- Developed customized solutions on the Actimize platform using Actimize Risk Case Manager, AIS Modeler, Java, HTML, CSS, JavaScript, and MySQL.
- Created and enhanced RCM and AIS objects to meet client-specific requirements, boosting platform functionality and usability.
- Actively contributed to project planning, milestone management, and continuous skill development, ensuring timely and efficient delivery.
- Conducted strategic analysis of client data, crafting precise specifications and tailored solutions for improved risk management and compliance.
- Recognized for proactive project management and innovative problem-solving, significantly enhancing user satisfaction and operational efficiency.

OTHER PROJECTS: (During Masters & Bachelors)

1. Recipe Finder – Full-Stack Web Application [Team of 4]

Technologies and Tools Used: React.js, Node.js, Express, MongoDB, Mongoose, JavaScript, CSS, HTML5, AWS EC2

Developed a full-stack MERN application for managing a recipe database with features to initialize the database, search recipes by name, ingredients, or description, and display results in a responsive card layout. Built the backend with Node.js and Express for data handling using MongoDB, and created a dynamic React frontend with controlled forms, recipe cards, and detailed views. Implemented an add-recipe feature with ingredient auto-suggestions and a favorites system for managing and viewing favorite recipes. Deployed the application on AWS EC2 for live access.

2. Handwritten Digit Recognition using Convolutional Neural Networks [Team of 3]

Technologies and Tools Used: Python, TensorFlow, Keras, CNN, NumPy, OpenCV, Jupyter Notebook

Contributed to a project that leveraged Convolutional Neural Networks (CNNs) to recognize the handwritten digit '9' in the MNIST dataset, despite being trained on limited data (0-5 digits). The project involved designing and implementing a CNN architecture, preprocessing images, and training the model to predict digits. The model could learn and extract meaningful features from the input images, achieving accuracy in predicting digits. This project demonstrated my skills in deep learning, image processing, and problem-solving, as well as my ability to work with limited data and achieve accurate

3. Development of a Flutter-Based Agriculture Management Application [Team of 3]

Technologies and Tools Used: Flutter, Dart, TensorFlow Lite, LGBM Classifier

Worked on DigiFarmer, a cross-platform smartphone app providing AI-driven insights for farmers. Developed with Flutter and Dart, the app features real-time weather updates, market prices, inventory management, and crop monitoring. Integrated TensorFlow Lite and LGBM Classifier for disease diagnosis and crop quality monitoring, even in low-connectivity areas. Ensured GDPR/CCPA compliance, secure user authentication, and data encryption. The project optimized farming operations, enhanced decision-making, and improved productivity.

4. Implementation of Vedic Multiplier [Team of 4]

Technologies and Tools Used: Verilog/VHDL, FPGA

This Project aims to implement Vedic mathematics algorithms using a high-level description language. A Comparison is made between results based on Vedic Methodology and stereotyped multipliers. This multiplier is implemented using the sutras Urdhva- tiryakhbyham, Modified Urdhvva Triyakbhyam, Ekanyunena Purvena.