

Poorna Raavi

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M.S. in Computer Science graduate with a specialization in Machine Learning and a proven track record in fine-tuning LLMs and developing Android applications. Eager to apply research experience and skills in Deep Learning, and data analysis to build innovative AI solutions.

TECHNICAL SKILLS

Languages: Python, Java, C#, C, R, SQL, C++

Mobile & Web: Android Studio, Unity, React, Figma

Data & ML: Deep Learning, ML & AI, NLP, LLM, TensorFlow, PyTorch, scikit-learn, Tableau, PowerBI, SQL, Hadoop

DevOps & Cloud: Git, Docker, AWS, Google Cloud, CI/CD, JIRA

PROFESSIONAL EXPERIENCE

Research Assistant

Clarkson University, Potsdam, NY

May 2024- Present

- Created a huge track visualization tool for Lake Placid athletes by processing geometric data from various tracks using C++ and the Open Cascade library. Imported and rendered the resulting 3D models in a Unity environment.
- Developed Gait Sensory Interaction Test (GaitSIT) using Unity to assess walking dysfunctions (gait analysis) in patients with VR Meta quest 3.
- Developed an Android application for real-time iris detection using smartphone cameras & advanced ML models..
- Working on an Audio Tampering detection for forensic use in federal investigations.

Horizons Graduate Assistant

Clarkson University, Potsdam, NY, USA

August 2024- Present

- Supported a mission-critical production system (Slate CRM) in a higher education environment, managing the student application lifecycle and ensuring data integrity for a key university program.
- Analyzed pre- and post-program survey data for camp attendees, identifying key areas of impact that informed strategy for the following year

Jr. Android Developer

EmbedSense Solutions Pvt Ltd, Bengaluru, India

June 2023 – Dec 2023

- Developed [Hoist Pro](#) (a hoist monitoring app) & [Ecotron](#) (an environmental monitoring Android app), IntegratedWhatsApp Business API, leading to a 30% increase in customer engagement, and implemented Firebase authentication for enhanced security.

Android Developer Intern

OSOS Pvt Ltd, Hyderabad, India

Jan 2023- June 2023

- Contributed to the development of Spaarks (A local networking app - available on play store: [Link](#))

EDUCATION

Clarkson University, New York | Master of Science – Computer Science

Jan 2024-Dec 2025

Acharya Nagarjuna University | BTech - Computer Science & Engineering

Aug 2019- May 2023

Publication

Ocular Age: A comparative study of Iris and Periocular Images for Pediatric Age Estimation
IEEE transactions on Visualization & Computer Graphics

[View Publication](#)

HACKATHONS & SEMINARS

[Raps](#)- Presented GaitSIT at Clarkson's Research & Project showcase during fall 2024 highlighting VR technology.

[VR Seminar](#)- Presented GaitSIT project as a speaker at Clarkson University seminar on Virtual Reality.

[Hexathon 2023](#) - Developed an object detection system for drone cameras in a 24- hour hackathon.

[GenHack 3.0](#)- Built an AI med bot for healthcare diagnoses during a 36- hour hackathon.

[Entrepreneurship](#)- Completed beginner & advanced Women entrepreneurship workshop on green economy.

PROJECTS

AWS Deployment with GitLab CI | <https://github.com/psvlnandu/AWS-S3-EBS-Deployment-with-GitLab-CI>

Designed and built a scalable, production-ready CI/CD pipeline to automate the ML model lifecycle ML Operations principle to automate the entire workflow from code commit to live cloud deployment, including build, test and deployment stages.

Text Analysis and Retrieval for Federal Datasets | [github](#)

Developed a multi-label classification model to predict federal agency names & document types from a large dataset of unstructured federal abstracts. Applied advanced NLP techniques including lemmatization and TF-IDF vectorization, and built two models: a Naive Bayes baseline and a high-performing Neural Network using Python, Keras, and Scikit-learn. Final Neural network achieved an F1-score of **0.93** on the test set.

Fine-Tuned Emotional Classifier CLI | <https://github.com/psvlnandu/Fine-Tuned-Emotional-Classifer-CLI>

Engineered a complete MLOps workflow to fine-tune a DistilBERT model for emotion classification, achieving decent accuracy on the target dataset. Developed and packaged the application into a professional-grade Command-Line Interface (CLI), making it easily deployable and installable via pip

Toxic Comment Classifier using GPT-2 | <https://github.com/psvlnandu/Toxic-Comment-Classifer-GPT2-Model>

Fine-tuned a GPT-2 model to effectively classify toxic online comments, achieving a high F1-score. Implemented custom text preprocessing and tokenization strategies specifically tailored for the GPT-2 architecture to optimize model performance.