

# RAMACHANDRAN KULOTHUNGAN

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## SKILLS

**Programming:** Python, Java, JavaScript, SQL

**AI/ML:** PyTorch, Scikit-Learn, Pandas, Numpy

**Frameworks:** Django, FastAPI

**Cloud & DevOps:** AWS, Terraform, Kubernetes, Docker, Github Actions, GCP

**Domains:** Machine Learning, Data Science, Backend Development, DevOps, Test Automation

## PROJECTS

**Agentic Trip Planner** | Langgraph, Grok, Streamlit,

- Created an agentic AI vacation planner using LangGraph and Grok LLMs, integrating Google Maps APIs, currency conversion, and calculation tools to automate personalized itineraries and cut planning time

**EmailWhiz - Bulk Cold Emailer** | Django, JavaScript, Tailwind CSS, MongoDB, GCP

- A Django based Web Application, enables users to send 100+ personalized cold emails and follow-ups directly without Gmail redirection.

**Summarization using LLMs** | Transformers, Pandas, Numpy

- Built a text summarization model by fine-tuning the 'facebook/bart-base' LLM on the Billsum dataset, achieving a ROUGE-L score of 0.338 and a BERTScore of 0.878.

**Transformer for News Classification** | Pytorch, NLTK, Pandas, Numpy

- Constructed a Transformer model from scratch for news classification on the AG's news dataset, attaining an F1-score of 0.91.

**Anime Recommendation Engine** | ScikitLearn, Pandas, Streamlit

- Leveraged a dataset of over 700K users and 5M ratings to build a robust anime recommendation system, implementing and evaluating three models, including KNN and matrix factorization, to provide personalized recommendations.

## WORK EXPERIENCE

**Software Dev Cloud Intern**

**Nokia Bell Labs**

June 2025–Present

- Developed test suites that eliminated manual UI effort by enabling 100% end-to-end regression automation of scaling, deployment, and software upgrades of Nokia CMM using NCOM across diverse lab environments (NCS, OpenShift).
- Developed an extensible and reusable library with 30+ keywords for API interactions and log collection, enabling seamless integration with Robot Framework or Python-based testing.

**Software Development Engineer in Test**

**Dassault Systemes**

August 2020–August 2024

- Architected a Python-Robot Framework-based API and UI test automation framework with support for CI/CD execution in GHA and goCD, adopted by 40+ teams.
- Led migration of an in-house app from a central AWS account to a dedicated team account, achieving 60% cost savings through EC2 rightsizing and accelerating deployment to all environments by building reusable Terraform modules
- Enhanced test visibility and health tracking for 30+ cross-functional teams by implementing a SumoLogic dashboard for real-time test pipeline analytics.
- Engineered a full-stack application deployed on K8s and AWS to centralize Robot Framework keyword searches across 10+ Git repositories.
- Cut the size of Robot Framework UI test logs by 85% by building a custom listener that captured screenshots smartly for new navigations.

## EDUCATION

**University at Buffalo**

Master of Science in Computer Science

Buffalo, NY, USA

August 2024 - Present

**Malaviya National Institute of Technology**

Bachelor of Technology

Jaipur, India

July 2016-June 2020

## ACHIEVEMENTS

- Achieved 1st place among 50+ teams at UB AI Hackathon by developing an AI-powered insurance recommendation app for Lighthouse Clinic using Next.js, FastAPI, and OpenAI models.
- Earned two awards at Dassault Systemes for outstanding performance and automation innovations that reduced test execution time by 50%, and improving efficiency across 40+ teams.