

# GANESH MAHADEV UDATA

Blekinge Institute of Technology, Karlskrona, Sweden

+46763405632    ganeshmahadev2463@gmail.com    www.linkedin.com/in/ganesh-mahadev-b95295190    <https://github.com/ganeshmahadev>

## Education

### Blekinge Institute of Technology Karlskrona

Jan 2023 – June 2024

*Master's in Computer Science*

### Jawaharlal Nehru Technological University Hyderabad

2019 – 2023

*Bachelor's in Computer Science*

8.23 CGPA

## Experience

### Master Thesis Student

Jan 2024 to Present

*Ericsson, Karlskrona*

- As a Master Thesis Student I am currently working on providing Actionable insights on ITSM data, by building a LLM chat application using LangChain and OpenAI that can provide the insights for an incident selected.

### Research Intern in Machine Learning

Aug 2022 to Oct 2022

*Centella Scientific Pvt Ltd*

- As a Research Intern conducted research on prediction of ADMET properties. Where I have done literature surveys to explore the prior research on these properties. Developed RF and XGB model to predict Extraction (E) property.

## Projects

### ITSM Support GPT | *Langchain, Ollama*

March 2024

- Built a POC RAG application that would answer questions on IT Incidents Root Cause Analysis (RCA) Data, using Langchain, Chromadb and Ollama.

### Language Detection using Traditional ML Techniques | *Python, ML*

January 2024

- Developed a ML model using traditional ML techniques like RF, XGB and also proposed our new ensemble model by combining SVM and Naive Bayes.

### AI Chatbot | *NLP, PyTorch*

December 2023

- Built a chatbot that can be integrated with an e-commerce coffee website using PyTorch and NLP techniques, used a feed forward neural network with two hidden layers.

### Real-Time Credit Card Fraud Detection | *Python, ML*

November 2023

- Developed a real-time credit card fraud detection system utilizing a Flask backend and machine learning to protect against unauthorized transactions. Built a user-friendly web interface for transaction input and fraud risk assessment.

### Cryptocurrency Price Prediction Decision Support System | *Python, Deep Learning*

May 2023

- The project's main goal is to compare the Cryptocurrency price predicted using various machine learning algorithms like RF, GRU, LSTM, and XGBoost for short-term prediction.

### Why So Harsh | *NLP, ML*

March 2023

- The purpose of this project is to create models that can help identify and flag inappropriate or harmful comments online. Pre-processed the data by using natural language processing (NLP) techniques to extract relevant features from the text data. Then used these features to train the classification model to predict the class of the comments.

## Technical Skills

---

**Languages:** C, C++, Python, Java, SQL, HTML, CSS

**Developer Tools:** MS Excel, VScode, Git, GitHub, Huggingface, Flask, Linux, Microsoft PowerBi

**Database:** MySQL, MongoDB

**Libraries/Frameworks:** Numpy, Pandas, Sklearn, TensorFlow, Streamlit, PyTorch, OpenAI, LangChain

## Course and Research Work

---

### Artificial Intelligence and Machine Learning

- Learnt the basics of AI, including how to represent knowledge, conduct graph searches, and perform data mining. Additionally, I have delved into the essential concepts of Machine Learning, such as supervised, unsupervised, and reinforcement learning, with a special emphasis on deep learning and neural networks.

### Detection of crop boundaries and identification of crop types using multi-spectral images.

- Conducted a concrete design for an empirical study by identifying research gap, formulated research questions, related work, identified the limitations of the study and also assessed risk management techniques and documented a research proposal keeping master thesis in mind.

### Evaluating the maintainability of ArtOfIllusion using a GQM based empirical study

- Created a measurement framework based on GQM principles, planned and executed an empirical study, and subsequently chosen and applied appropriate metrics to assess a software quality attribute of ArtOfIllusion.

### Threat modeling for a web application called OWASP Juice Shop

- Created a comprehensive report that encompasses the application's breakdown, a detailed Data Flow Diagram (DFD), categorization of threats according to the STRIDE model, and the corresponding mitigation strategies.

## Major Courses

---

- |                           |                         |                           |                     |
|---------------------------|-------------------------|---------------------------|---------------------|
| • Data Structures         | • DBMS                  | • Software Metrics        | • Software Security |
| • Research Methodology    | • Computer Architecture | • Machine Learning        |                     |
| • Decision Support System | • Computer Networks     | • Artificial Intelligence |                     |
| • Software Methodology    | • Compiler Design       | • Unix                    |                     |

## Certificates

---

- Introduction to Python Programming – Microsoft Technology Associate
- Machine Learning course completion certificate by Remark Skill Education
- Crash course on Python by Google