ΔΝΊΔΝΑ ΚΑΡΑΤΗΔΤ ΡΑΊΕΕΥ

Data Science Graduate

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Summary

Data science professional with expertise in healthcare AI applications, combining strong statistical foundation with hands-on experience developing diagnostic tools. Skilled in machine learning, NLP, and creating user-friendly interfaces for AI systems.

Education

RMIT University Melbourne Master of Science in Data Science | GPA: 3.6 / 4.0 02/2023 - 12/2024

Espoo. Finland Aalto University - Student exchange program Master of Science in Applied Statistics and Data Analytics | GPA: 3.2 / 4.0 01/2022 - 07/2022

Amrita Vishwa Vidyapeetham (Deemed University)

Master of Science in Applied Statistics and Data Analytics | GPA: 9.19 / 10.0 06/2020 - 07/2022

Amrita Vishwa Vidyapeetham (Deemed University) Bachelor of Science in Mathematics | GPA: 8.83 / 10.0

Tamil Nadu, India 06/2017 - 06/2020

Tamil Nadu, India

Experience

InflaMed Melbourne, Australia Data Science Intern 07/2024 - 11/2024

Machine Learning, Natural Language Processing, LangChain, Flask, Python, Image Classification, Healthcare Al Applications

- · Developed an advanced chatbot for skin condition diagnosis using LangChain, integrating image classification models and research paper processing
- Implemented deep learning for image analysis and NLP for symptom evaluation
- Created user-friendly web interface with Flask for seamless interaction with the Al diagnostic system
- · Collaborated on end-to-end development from data preprocessing to system integration

Projects

Skin Cancer Detection App using Grad-CAM

2023

Class Activation Map, Explainable Machine Learning, Grad-CAM, Object detection, Healthcare, Evaluation metrics

- Integrated Grad-CAM with ResNet50 architecture, improving localization accuracy by 15%
- Trained model targeting 95% accuracy, generating class activation maps for enhanced lesion recognition

Grad-CAM: Comprehensive Survey

2022 - 2023

Class Activation Map, Explainable Machine Learning, Grad-CAM, Evaluation, Intersection of Union

- Compared performance of CAM models with computer vision architectures (ResNet50, VGG-16, ViT)
- Found XGradCAM with ResNet50 yielded highest performance (68.34% confidence score)

Comparing Logistic Regression and Decision tree classifier in Predicting Prevalent Hypertension

2022

Machine Learning, Logistic regression, Decision Tree Classifier, Sklearn, Matplotlib, Seaborn, NumPy

- Developed logistic regression and decision tree models to predict hypertension
- · Decision tree classifier emerged as preferred model for interpretability and nonlinear handling

Difficulty Analysis of Quiz Item with Mouse Dynamics

2021 - 2022

HTML, PHP, Database Management, JavaScript, pattern recognition

- · Created website tracking mouse movements to differentiate genuine understanding from guesswork
- Used response times to assess quiz difficulty levels for tailored student support

Volunteering

Amritapuri Ashram

Food Service Assistant and Crowd Control

2017 - 2020

Volunteered as a Food Service Assistant at Amma's Ashram, dedicating my time every September from 2017 to 2020.

Strengths

Data analysis expertise

Ability to generate actionable insights from complex datasets.

Machine learning skills Proficiency in building AI models for healthcare diagnostics.

Research enthusiasm

Web development experience Creating user-friendly interfaces for Al systems

Passion for tackling real-world challenges through research projects.