Heishigan Pathmaraj

Graduate Student in AI for Health

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Graduate student in AI for Health merging expertise in game development, software engineering, and machine learning to create innovative, user-centered technology solutions with real-world applications.

Projects

SAGARIDE - GAMIFIED CYCLING APP | REACTJS, FIREBASE

2025 | Deloitte Hackathon

- → Developed a gamified cycling app that transforms daily commutes into interactive adventures, using ReactJS for the front-end and Firebase for the backend.
- → Integrated Google Maps API for route recommendations and OpenWeather API for weather-based achievements.
- → Designed features such as QR-based story stones, weather-tiered achievements, and CO2 tracking to enhance user engagement and promote sustainability.

SHADOWS OF ELDERTIDE | UNREAL ENGINE 5, C++

2023 | Portfolio Project

- → Developed an action-adventure game in Unreal Engine 5, showcasing proficiency in C++ programming.
- → Created captivating game-play with dynamic combat mechanics, diverse enemy types, and a boss battle.
- → Crafted an immersive narrative and game world, prioritizing storytelling and user experience.

PROTOTYPE OF AN AFFECTIVE VIDEO GAME | UNREAL ENGINE 4, PYTHON, ARDUINO

2022 | Staffordshire University

- → Developed a horror themed game from scratch on Unreal Engine 4, that responds to the player's emotional state, as my Final Year Project.
- → Emotional state of the player is determined by an Arduino based pulse sensor and Python based Facial Emotion Recognition Application in real-time.
- → Based on the determined emotional state, audio-visual properties, and difficulty of the game is dynamically adjusted.

CAR RODIO - WEB DEVELOPMENT | HTML, CSS, PHP

2021 | Staffordshire University

- → Built a website for a group project that facilitates sales of vehicles in second semester of year 2.
- → Personally focused on the development of the back-end.

LOOKGOOD - ANDROID APP DEVELOPMENT | JAVA, FLUTTER

2021 | Staffordshire University

- → Developed a mobile application for a business scenario in both Java & Flutter as a project throughout year 2.

Education

STAFFORDSHIRE UNIVERSITY BSc (HONS) COMPUTER SCIENCE (FIRST CLASS HONOURS)

October 2019 - September 2022

School of Computing

STOCKHOLM UNIVERSITY MASTER'S IN AI FOR HEALTH

September 2024 - Present

Institutionen för data- och systemvetenskap

References

Chathuranga Manamendra, Software Development Manager, Amazon
✉ manachat@amazon.com   📞 +1 206 266 1000
Dimanthinie Laleen De Silva, Doctoral Fellow, QUT Australia
✉ weerapperuma.silva@hdr.qut.edu.au   📞 +61 415 488 085

Skills

PROGRAMMING

Proficient:
Java • HTML • CSS
JavaScript • SQL • C++
Python

Experienced:
PHP • C# • React

Familiar:
LaTeX

LIBRARIES/FRAMEWORKS
Laravel • scikit-learn • PyTorch

TOOLS/PLATFORMS
Git • Unreal Engine
Hadoop • Docker

Coursework

POSTGRADUATE
YEAR 1
Foundations of Data Science •
Biological Foundations of
Health and Disease •
Introduction to Information
Security •
Big Data with NoSQL
Databases •
Data Mining •
Health and the emergence of
diseases •
Natural Language Processing •
Machine Learning •

YEAR 2
Explainable AI •
Reinforcement Learning •
Research Topics in Data
Science •
Managing AI in the
Organization •
Master Thesis •