KARTHIK SURESH

Information and Computer Engineering student with experience in software development and data modelling.

📞 07476759339 @ karthik.uwc@gmail.com 🔗 ksureshprojects.github.io 📍 Wolfson College, Cambridge, CB3 9BB

EDUCATION

Information Engineering, BA & MEng (Hons)

University of Cambridge 📅 10/2016 - 06/2020
- Courses include Information Theory, Statistical Signal Processing, Inference, Probabilistic Machine Learning, Deep Learning, and Computer Systems.
- Pursuing a 4th year master's project in "Sparse Principal Component Analysis".
- Created iPython notebooks to explore examples of different supervised learning, unsupervised learning and dimensionality reduction methods.
- Achieved 2:1 grade in third year examinations.

A - Levels

Cranleigh School, UK 📅 09/2012 - 06/2014
- Attained A* grades in Physics, Chemistry, Maths and Further Maths

EXPERIENCE

Extreme Blue Intern (Technical)

IBM (UK) 📅 06/2019 - 09/2019
- Worked in a team of 4 interns on a client project for Aardman Animations.
- Built a pair of mobile applications to improve the engagement between two key stakeholder groups, using Unity (C#) and VueJS respectively.
- Developed an algorithm that improved video streaming speed from cloud storage by 300%, compared to the built-in Unity streaming object.
- Implemented features for content to be dynamically pushed to the Unity application from cloud resources.
- Integrated cloud functions, database services, and MQTT broker services to collect user data and enable inter-application communication channel.
- Prototype received commendation from client company's founders for technical design and attention to user needs, in final team presentation.
- Primary inventor on search algorithms related patent submission.

Software Development Intern

I2R (Singapore) 📅 07/2018 - 08/2018
- Conducted research to investigate how Serverless web development could help the team lower infrastructure costs, improve scalability, and enhance security.
- Enabled team to continue research into Serverless by presenting a working prototype of a Serverless web application, built using AWS user management services, cloud functions, and cloud database resources (SQL).
- Improved user experience of prototype by using ReactJS to build web application interface.

Software Development Intern

ConnectDott (Singapore) 📅 11/2017 - 12/2017
- Self taught principals of object-oriented programming using C# codebase.
- Created two new views and fixed two feature bugs within a Xamarin mobile application that enables mariners to manage maritime certificates.
- Pull request accepted for inclusion in release of app update.

Intern

ServiceDott 📅 02/2016 - 03/2016
- Conducted market research for a new smart recruitment software.
- Prepared and delivered a presentation that helped product team get selected to attend a large start-up conference (RISE 2016).

SKILLS

Python Probabilistic ML Deep Learning C# Statistical Signal Processing SQL AWS Data Reduction JavaScript

PROJECTS

2018 Dublin Datathon

2nd Place team out of 30 teams
- Cleaned and organised New York state food establishment health inspection data using Python.
- Created logistic regression model in Python to predict likelihood of critical health violations.
- Received commendation for clarity in submission's analysis and presentation.

Data Compression

Technical Report - Top Grade
- Investigated the storage and implementation performance of different compression methods.
- Achieved a 3:1 compression ratio using an adaptive contextual coding method implemented in Python.

Digital Circuit Simulator

3rd Year Project - First-Class Grade
- Developed the graphical user interface for a software, using Python, that simulates the behaviour of digital circuits.
- Successfully implemented bug-free 3D displays in under 3 hours for new requirement at short notice.
- Implemented unit tests to automate feature checking within the application.

OTHER INTERESTS

President

Impact Through Innovation Cambridge
- Cambridge engineering society that enables individuals to participate in technical projects that aim to tackle global challenges.
- Developed communications strategy which resulted in 60% increase in sign-up and established links with an international NGO.

Player & Committee Member

Cambridge University Cricket Club
- Raised over £4000 for an overseas tour.
- Earned professional cap for Cambridge University against Worcestershire.
- Represented Singapore in the 2017 SEA Games.