Sheamol Obeda

University of Cambridge, Masters in Engineering

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EDUCATION

King's College, University Of Cambridge October 2018 − June 2022

MEng − Class II.1 Information and Control Engineering

BA Hons − Class I Aeronautical and Aerospace Engineering

Papers include: Business Economics, Strategic Management, Machine Learning, Deep Learning and Structured Data, Computer Vision, Control System Design, Fluid Mechanics − First two years consisted of general engineering

WORK EXPERIENCE

BidFX 5th Floor, York House, Kingsway, London

Graduate Technologist October 2022 − Current

- Rotations in integration, infrastructure, development operations and quality assurance
- Became comfortable using the FIX api by on-boarding 3 clients within a 4 month rotation
- Migrated over 500 users from hard coded internal system to central location by using automation software such as Selium

King's College Summer Research Programme King's College, Cambridge

Cambridge Computer Lab − Student Researcher June 2021 − September 2021

- Created system to identify diseases in animals measured by comparing the output to over 200 data points, by analysing gait using computer vision and machine learning techniques
- Detected abnormal gait by comparing 100 hours of video footage to a known list of infected animals by implementing a convolution neural network

The MTC Ansty Park, Coventry

Design for Additive Manufacturing Team − Summer Intern July 2019 − September 2019

- Designed a system to reduce waste and streamline processes in additive manufacturing by using topology optimisation
- Declared geometric dimensioning and tolerancing on a technical drawing by utilising Solidworks and NX user interfaces

PROJECTS

Wireless Motion Capture Centre for Advanced Photonics and Electronics, Cambridge

Masters Project October 2021 − June 2022

- Recreated 3 dimensional motion of a model human arm by using body mounted accelerometers and gyroscopes
- Analysed motion data from sensor units by programming an Arduino and using MATLAB to process the data
- Achieved wireless communication from sensor units to remote processing unit using WiFi communication protocols

Natural Language Processing of Student Social Media Page December 2021

- Tracking trends in the student body's collective thoughts by analysing over 200,000 Facebook posts made by an anonymous student confessions page
- Displayed collected data to a target audience of 100,000 followers by using natural language processing libraries and data visualisation and handing libraries such as pandas and matplotlib

Tennis Player Ranking November 2021

- Ranking all tennis players from the 2016 championships from each player's performance statistics by using probabilistic machine learning techniques
- Predicting the outcome of future games by using methods such as Bayesian Inference, Gaussian Processes, and Latent Dirichlet Allocation

Carbon Dioxide Data Analysis March 2020

- Presented global carbon dioxide data by using pandas, matplotlib and numpy libraries to collect, handle and interpret data
- Tracked trends and predicted both short and long term movement by using various data science techniques such as regression analysis and non-linear models

Integrated Design Project February 2020 − March 2020

Project Leader

- Project leader for a team to deliver a fully autonomous robot to locate and pick up obstacles
- Superheaded design process for the team by keeping the team on target to deliver the milestones set
- Fabricated mechanical system to house all components by using Solidworks, LTSpice, 3D printing and laser cutting

Hack Cambridge January 2020

- Created a prototype centralised data system to be used with medical records with a team of 3 other students
- Implemented a data extraction system by combining Python and C++ with Microsoft Azure's optical character recognition
- Represented the team to a panel of judges by creating a pitch deck and business strategy for the product

LANGUAGE AND IT SKILLS

Languages: English (Fluent), Bengali (Mother Tongue), BSL (Beginner), German (Beginner), Japanese (Beginner)

Programming and Markup: Python, Java, C, C++, SQL, MATLAB, git, Raspbian, CSS, HTML, Linux, cmd, LaTeX

INTERESTS

TaeKwonDo: Black Stripe, British University Championships in Nottingham 2022, Varsity Squad for the University of Cambridge in 2022, 2020 and 2019

Folk Musician: Bodhran, Fiddle, and Accordion player, gigs in Cambridge, Oxford, Birmingham, Yorkshire, Devon and Cornwall