

# 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

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### WORK EXPERIENCE

#### BidFX

5<sup>th</sup> 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

#### Sheamol Obeda Photographic Services

Cambridge

*Owner and Photographer*

September 2018 – June 2022

- Constructed photography business with over 50 clients for services such as events, social media, fashion and portraits
  - Marketed services to over 10,000 people using social media and online engagement
  - Cultivated a digital presence to reach a wider audience by producing a website for potential clients to interact with
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### 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 handling 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
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## ACTIVITIES

### Entrepreneurship

King's Entrepreneurship Lab

September 2021 – June 2022

- Attended week long conference teaching entrepreneurship skills
- Seminars included topics on start up funding, intellectual property law, and growing ideas into businesses
- External speaker events from Herman Hause and Warren East

Owner of photography and videography business – Portfolio on [Sheamol.com](https://www.sheamol.com)

September 2018 – June 2022

### Face-to-Face, Telephone and Written Communication

Reviewer of theatre productions for the Varsity newspaper – [varsity.co.uk/profile/sheamol-obeda](https://varsity.co.uk/profile/sheamol-obeda)

August 2022

Steward at the Amateur Dramatic Club Theatre

September 2018 – June 2022

Social Secretary and General Committee Member for Cambridge University Ceilidh Band

April 2020 – April 2022

College Alumni Fundraising Campaign

December 2020

- Talking to college alumni over the phone to achieve highest number of calls over three consecutive weekends
- Secured over £20,000 of donations in total for use by the college for student amenities

### Leadership

Treasurer of the Cambridge Cardboard Boat Race

April 2022 – June 2022

- Directed and marshalled the annual Cambridge Cardboard Boat Race with more than five thousand spectators
- Procured funding from sponsors used for waste management and equipment

Campaign Manager for Zaynab Ahmed, Cambridge Students' Union

March 2022, March 2021

- Led the winning team for two consecutive years: President 2022 and Access, Education and Participation Officer 2021
- Created and executed a campaign plan which included strategies for social media, flyering, hustings and speeches

The Cambridge Period Project

September 2021 – June 2022

- Leading a charity with focus on providing period products to the Cambridge community
- Managed the marketing and development team, use social media (Facebook, Twitter, Instagram)

Cook and Team Lead at Cambridge Community Kitchen

September 2021 – June 2022

President of Cambridge University TaeKwonDo Club

April 2021 – April 2022

President of King's College Darkroom

September 2021 – June 2022

President of King's College Cardboard Boat Club

September 2021 – June 2022

Sports, Societies and Freshers Officer for KCSU

March 2019 – March 2020

- Superheaded organisation and delivery of freshers week 2019
- Overlooked all student societies and sports within college

### Social Media Management

Admin of anonymous student submissions page

March 2021 – June 2022

- Daily oversight of a Facebook page with over 21 thousand followers
- Moderation of submissions, posts and comments to this page

Webmaster for *The Cambridge Period Project*

September 2021 – June 2022

Webmaster, Publicity and Design Officer for *Cambridge University BanglaSoc*

March 2020 – April 2021

- Designed and deployed websites
- Constantly renewed the website with up-to-date news and events
- Focus on user experience, ease of use and accessibility, use of HTML and CSS

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## LANGUAGE AND IT SKILLS

**Languages:** English (Fluent), Bengali (Mother Tongue), British Sign Language (Beginner), German (Beginner), Mandarin (Beginner), Japanese (Beginner)

**Computer Literate:** Word, Excel, PowerPoint, Outlook, Photoshop, Lightroom, Illustrator, PremierPro, Solidworks, NX, LTspice, IntelliJ, VS Code, Arduino IDE, Zortero, vim

**Programming and Markup:** Python, Java, C, C++, SQL, MATLAB, git, raspbian, CSS, HTML, Linux, cmd, L<sup>A</sup>T<sub>E</sub>X

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## INTERESTS

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

**Other Sports:** Surfing (Anglesey, Peniche, Newquay), Bouldering, Skateboarding, Longboarding, Snowboarding (Val Thorens 2021), Roller skating, Rowing (Second Men's Boat, King's College 2019 and Northampton Time Trials, Bishop Vesey's 2017), Running (Cambridge Half Marathon, April 2022)

**Darkroom and Digital Photography:** Darkroom photography experience since 2011, exhibits in King's College and Birmingham Art Gallery, portfolio on Sheamol.com

**Improvised and Stand-up Comedy:** Stand up shows with the Cambridge Footlights in Cambridge and the Edinburgh Fringe, solo show in Val Thorens, improvised comedy shows with the Cambridge Impronauts in Cambridge, improvised musical shows with the Showstoppers in London

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

**Life Modelling:** Modelling for professional artists (Frontier Games) and student events (Architecture Society, Fitzwilliam Museum After Dark)

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