

# 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

#### Bishop Vesey's Grammar School, Birmingham

September 2016 – June 2018

*A Levels – Maths (A\*), Further Maths (A\*), Physics (A\*), Computer Science (A)*

#### King Edward VI Aston School, Birmingham

September 2011 – June 2016

*GCSEs – 12 Subjects (all Grade A\* – B) including Maths (A\*) and English (A)*

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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
- Onboarding client sessions and liquidity providers to system to cloud based aggregation platform
- Handling FIX messages between internal system and liquidity providers

#### King's College Summer Research Programme

King's College, Cambridge

*Using Machine Learning and Computer Vision to Analyse Animal Gait*

June 2021 – September 2021

*Student Researcher*

- Using computer vision to assess the posture and gait of sheep
- Implementation of classification methods to analyse footage
- Creating a neural network and using inference methods to evaluate the given footage

#### The MTC

Ansty Park, Coventry

*Design for Additive Manufacturing Team*

July 2019 – September 2019

*Summer Intern*

- Leading the design for additive manufacturing team to streamline additive manufacturing processing
  - Implementing topology optimisation for a range of projects
  - Use of Solidworks and NX to add GD&T in technical drawings
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### PROJECTS

#### Wireless Motion Capture

Centre for Advanced Photonics and Electronics, Cambridge

*Masters Project*

October 2021 – June 2022

- Use of body-mounted accelerometers to capture and recreate 3 dimensional motion
- Research, build, and design a system to capture motion wirelessly to a specified accuracy
- Application of Arduino microcontrollers, C, MATLAB and WiFi communication protocols

#### Natural Language Processing of Student Social Media Page

December 2021

- Analysis of over 200,000 Facebook posts made by an anonymous student confessions page
- Use of natural language processing libraries such as NLTK to track trends in submissions and posts
- Creation of visual representation of data to present to a Facebook audience

#### Use of Probabilistic Machine Learning Techniques

November 2021

- Ranking tennis players and making predictions of the outcome of future games from each player's performance statistics
- Using regression methods to implement system for projections for a given set of data
- Deployment of Bayesian Inference, Gaussian Processes, Probabilistic Ranking, and Latent Dirichlet Allocation

#### CO<sub>2</sub> Data Analysis

March 2020

- Using pandas, matplotlib and numpy libraries to collect, handle and interpret data
- Use of data science techniques to examine trends and develop data models
- Application of the created data models to conduct predictions for short and long term estimations

#### 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 whilst keeping the team on target to deliver the milestones set
- Use of Solidworks, LTSpice, 3D printing and laser cutting during the design and build of product

#### Hack Cambridge

January 2020

- Implemented Python and C++ with Microsoft Azure's optical character recognition to define a data extraction system
  - System then implemented in medical record databases in hospitals in the UK to implement a centralised system
  - Built a pitch deck and business presentation to present the idea and company to sponsors
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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 – Current

### 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

Umpire of Cambridge Assassin's Guild

October 2020 – December 2020

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++, raspian, MATLAB, git, 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, Accordion and Guitar player, gigs in Cambridge and Oxford, tours in 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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