

Employment

• **Research Assistant**

- **Centre Of Excellence In Terrorism, Resilience, Intelligence and Organised Crime Research (CENTRIC)**
 - Worked alongside the **United Nations, Home Office** and other international policing institutions to develop **security applications** utilising **artificial intelligence, machine learning** and algorithms to **counter terrorism** and monitor war activity.
 - Developed an **image fingerprinting algorithm** using **Fourier transformations** and **Discrete Cosine Transformations** to form a **perceptual hash** in **Python**. This allowed for the efficient identification and classification of visually similar images within large datasets, achieving greater than **90% accuracy** of image identification.
 - Created a service in **Java Play Framework** that precisely determines the users' **geo-location** and displays the relevant emergency phone number on a **website** dedicated to combating child abuse and supporting victims of human trafficking
 - Developed an applet to filter, sort and categorise Ukrainian geographical locations to track war activity.
 - Led development to migrate outdated website to site using latest **PHP** script techniques. (Sheffield, United Kingdom, Jul 23-Aug 23)

• **Research Consultant**

- **Design Futures @ Sheffield Hallam University**
 - Collaborated with design teams working with **BMW, Mercedes** and **Jaguar - Land Rover**, to draft schematics and compile component and data sheets.
 - Developed **end user code** in **Python** and **C language**. Counselling and assisted with the technical portion of product development.
 - Proactively advised the technical development of manufacturing products. (Sheffield, United Kingdom, May 2017 - Jul 2017)

Projects

• **Autonomous Machine Learning Rover**

- Designing and building a rover that utilises **artificial intelligence** and **machine learning** through **computer vision** combined with **Internet of Things** to plot, map and analyse upon deployment.
- Research resulted on my code being implemented on all **Ubuntu Distributions** affecting **over 40 million users**.
- The rover uses a **Raspberry Pi, Virtual Private Networks** and **Computer Vision** to communicate with hardware

• **NASA MINDS**

- Designing an inventory tracking system for implementation in the **NASA Artemis Mission**
- Utilising an **RFID network** to monitor and track gear and instruments in a given area with **centimetre accuracy**
- My designs include usage of **Arduino** in conjunction with RFID and radio equipment.

• **Self-Piloting Rocket**

- Using **3D printed** parts as well as **Arduino**, electrical components and F grade rocket engines to build a rocket that flies and lands by itself.
- Designed circuitry and software in **C language** for the rocket's stability.
- Calculated the rocket's flight trajectory using **Physics** and **Mathematical principles**.

• **Vice President of the Applied Engineering Club**

- Created the first active applied STEM club on Campus, garnering **200+ members** in a year.
- I personally hold **workshops** and presentations for **artificial intelligence, electronics, circuitry** and **programming** to educate and enhance the skills of club members.
- Acting liaison with organisations such as **IEEE** and guest speakers.

- I oversee all club activities, projects and competitions to assist in development and report progress to the dean of engineering.

Awards

- The BiG Challenge- First Prize & Most Innovative Company
 - Established a **server hosting** company from £25 loan, I grew it to have servers in 4 countries around the world grossing over £1500 in profit from hundreds of customers.
- ARUP Engineering Awareness- First Prize
 - After planning a building complex, led by me, my team gave a presentation breaking down our complex into all engineering disciplines and were awarded first place for our designs.

Additional Experience

- **Assistant Network Administrator**
 - **Computer Science and IT department @ Sheffield Hallam University**
 - Configured and maintained local **servers** dedicated to supporting devices and computers within the computer lab, ensuring optimal performance and reliability.
 - Acquired expertise in crafting CAT-6 Network Cables of varying lengths, while being taught the skills needed to enhance overall **network efficiency**.
(Sheffield, United Kingdom, May 2018 - Jul 2018)
- **Network and Systems Administrator**
 - **Precision Tech Plus**
 - Implemented a **wide area network** to enable access to electronic devices, such as laser cutting equipment while overseeing computer systems.
 - Set-up servers on the **cloud** to be able to work from home.
 - Provided **IT support** on an as needed basis.
(Sheffield, United Kingdom, Sep 2018 - Mar 2020)

Programming Languages

- Python, C/++/#, Java, Rust, Kotlin, Haskell, Assembly (Intel), SQL, Bash, JavaScript, ReactJS, HTML5, Scala

Languages

- English- Native
- Farsi- Native
- German- Professional Proficiency
- Spanish- Elementary

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