Syed Akhass Adnan Wasti

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Education

Trinity College, University of Cambridge, UK – M.Eng & BA (Hons.)   **Oct 2014 – Jun 2018**
Specialisation: Information and Computer Engineering

Courses include: Probabilistic Machine Learning, Deep Learning, Image processing and Coding, Computer Vision, Computational Neuroscience, 3D Computer Graphics, Management of Technology

M.Eng Project: Using Active Semisupervised Convolutional Neural Networks for ship detection from SAR images

NED University of Engineering and Technology, Pakistan – 3.93/4.00 GPA   **Dec 2013 – Jun 2014**

Karachi Grammar School, Pakistan – 4A*, 2A in GCE A levels   **Sep 2011 – Jun 2013**

Work Experience

Software Development Engineer, Amazon   **Sep 2018 – Present**
- Working closely with Ring, a Santa Monica, California based company, to build scalable cloud services and CV pipeline infrastructure for camera devices, with the ultimate goal of reducing crimes in neighbourhoods.

Extreme Blue Technical Intern, IBM UK   **Jun 2017 – Sep 2017**
- Developed novel platform, Blueberry, that automatically generates customizable chatbots for iPaas products
- Specialized in setting up ETL pipeline and server routing in Express.js
- Extensively studied how users interact with iPaaS offerings in the market, identified key pain points to target
- Communicated project milestones to IBM business leaders and technical teams via weekly presentations
- Presented MVP to several of IBM's top-tiered executives including CEOs of IBM UK and IBM France, and presented at the Extreme Blue European Expo 2017 in Paris. Much appreciated by the CEOs
- Blueberry now in production, to be unveiled at Dreamforce Conference in San Francisco in Nov 2017

Information Technology Intern, Shell UK   **Aug 2016 – Sep 2016**
- Devised a Management Information (MI) database to monitor SharePoint sites across 70 countries
- Compiled 13,000+ sites' usage data from several usage reports into a single repository
- Wrote an ETL script for automatic data collection and data visualization to aid IT Managers
- Enabled IT Managers to identify sites reaching max capacity and rescue them from becoming read-only

Spring Week Intern, Shell UK   **April 2016**
- Collaborated with other interns to collectively tackle challenging case studies, overcome conflicting interests
- Presented to senior business leaders about challenges facing the energy industry

Research Assistant, Tun Abdul Razak Research Centre (TARRC), Hertford, UK   **Aug 2015 – Sep 2015**
- Modelled a novel seismic isolation system in MATLAB using Huang's coupled biaxial plasticity theory
- Tested model predictions against actual prototype and found in good agreement
- Presented findings before company researchers' colloquium. Results published in paper (Muhr et al, 2015)

President, Cambridge University Engineering Society (CUES)   **Mar 2017 – Mar 2018**
- Leading a committee of 33 that run Cambridge's most active student society with over 1300 members
- Introduced data-driven decision making; monitoring several key metrics like social media engagement
- Guiding the society's mission, setting team's milestones, and optimizing allocation of over £60,000 budget
- Successfully restructured the committee to aid effective communication, introduced mid-level managers
- Introduced agile methodology and weekly playbacks for proactive decision making

Vice-President, Cambridge University Engineering Society (CUES)   **Mar 2016 – Feb 2017**
- Negotiated 30% increase in CUES sponsorship with 14 corporate sponsors
- Conducted CUES Grants Scheme 2016 that provided grants worth £3000+ to deserving Cambridge students

Awards and Patents

- Airbus Defence and Space Runner-up prize (from 320 Cambridge students) for Mars Lander simulator
- Cambridge Trust Scholarship
- Keasby Memorial Foundation Award
- Canadian Senior Mathematics Contest Champion, University of Waterloo
- Highest Mark in the World in GCE Additional Mathematics
- 2 patents pending (Auto-generation of chatbot + Intelligent control of GUI in Smart Phone)

Technical Skills

- Proficient in C++, Java, MATLAB, Python, SQL, Excel VBA and Macros
- JavaScript web development: React.js, Node.js, Express.js
- Proficient in LaTeX for reports, D3.js and Spotfire for data visualisation, and MS Office suite
- Experienced in the use of UNIX/Linux and Windows environment

Projects and Initiatives

'Cambridge Mentorship' platform   Oct 2017

- For students to tap into the vast Cambridge alumni network worldwide
- A pilot project currently pairing senior undergraduate engineering students to incoming freshers
- Backed by the Cambridge Engineering Alumni Association and Engineering Department, to be scaled up to include alumni in industry by the end of the year

Technology for the Poorest Billion   May 2017

- Worked with Waterscope, an NGO in Cambridge, to develop a web application and driver board for control of a 3D printed microscope to be used for for quick and easy analysis of water sources in developing countries
- Implemented 3-axis stepper motor control of microscope using Arduino CNC Shield
- Used Raspberry Pi to transmit video stream and sensor readings to mobile device over Wi-Fi

Image Processing   May 2017

- Implemented image compression scheme in MATLAB after studying JPEG2000 and JPEG-XR algorithms
- Surpassed industry standards on both metrics: compression ratio and image quality

'ARM Hackathon' series   Oct 2015

- Founded the 'ARM Hackathon' at Cambridge to generate innovative solutions around Internet of Things
- Negotiated with ARM on the project budget, invited ARM engineers and Cambridge academics to judge
- Formed 10-member task force team to manage the event logistics
- Since then, the Hackathon has been held annually with over 100 students attending every year

Integrated Design Project   Oct 2015

- Designed from scratch, manufactured, and tested to failure an Autonomous Guided Vehicle(AGV) to full requirements in a span of 4 weeks, under tight time constraints as part of this multi-disciplinary project
- As team coordinator, managed all aspects of the project ranging from initial concept generation to a final design. AGV performed most efficiently at the final competition and impressed judges

Other Interests

- **Social Service:** Organised fundraiser for free dialysis and kidney transplants at Sindh Institute of Urology and Transplant. Managed blood donation drives and raised funds for to build a school in rural Sindh
- **Hackathons**: Built end-to-end IoT healthcare MVP at ARM Hackathon 2016, Citadel Datathon 2017
- **Rowing crew:** Trinity First & Third (Queen's Ergs & Clare Novices 2014). Karachi Grammar School (2011-13)
- **Debating:** Best position paper award, GRAMMUN 2012. Jinnah University Declamation Contest, 2011
  Photography: Official photographer for The Grammarian (2012-13)

References available on request