

Zarif Aziz

Dual Bachelor of Mechatronic Engineering (Honours) and Commerce (Information Systems)

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Education

University of Sydney (USYD)

2015 – 2019, Sydney, Australia
First Class Honours, Average Mark: **80**

Relevant Coursework

Predictive Analytics, Robotics, Machine Learning, Engineering Computing, Mechatronic Systems, Business Intelligence

Comillas Pontificia University – Exchange

Marketing
Madrid, Spain – 6 months, 2017

Skills Summary

Programming Languages

Proficient: Python, Bash, C, MATLAB
Familiar: C/C++, SQL, JS, Java, HTML, CSS, JQL, Assembly

Data Science Stack

Scipy, NumPy, Pandas, OpenCV, Tensorflow, Keras

Other Skills

Data Structures, Algorithms, Machine learning, CNNs, Linux, Git, Agile

Achievements

- NVIDIA GTC 2021 Presenter
- USYD Chancellor's Scholarship Recipient
- USYD Engineering Sydney Industry Placement Scholarship Recipient
- 99.95 ATAR (equivalent of 4 A Stars in CIE GCE)
- Gained Highest Physics Mark in Bangladesh for IGCSE

Work Experience

Data Science Engineer @ Abyss Solutions

Mar 2020 – Present, Sydney, Australia

- **Machine learning lead** for 'Flare Stacks' inspection project which involved planning tasks, labelling and developing **CNN** model to produce corrosion detections. Developed a new model which increased efficiency by 40%. Presented at **NVIDIA GTC 2021**.
- Developing various core applications using **Python** and **Bash** to analyse high-resolution **image data**, **3D point-cloud** data and **video**.
- Developed industry-level image segmentation application based on **Tensorflow 2 Keras API**, with the aim of having a standardised method to train various machine learning model architectures and backbones on image data.

Research Intern @ Nearmap

Jul 2019 – Dec 2019, Sydney, Australia

- Developed a **flight scheduling tool** for Nearmap's fleet of planes. Placement given by the Engineering Sydney Industry Placement Scholarship (ESIPS) for my Honours Thesis.
- Implemented a customised Genetic Algorithm for **path-optimisation**.
- Model was able to generate full-year schedules. Built using **Python**. Final Mark: 85 (High Distinction).

Data Analyst Intern @ Deloitte

Jan 2019 – Feb 2019, Sydney, Australia

- Used Analytics to assist the Audit team. Implemented using **SQL** and **Tableau**.
- Built a **Machine Learning** predictive model to detect journal entry outliers using **Python**.
- Built dashboard using **HTML** and **CSS**.

Software Engineer @ FUND3

Aug 2018 – Dec 2018, Sydney, Australia

- Built a service that notifies significant changes in cryptocurrency transactions, hosted on **Amazon EC2**.
- Integrated service with Slack API. Using **Python**, **Jupyter**, **Pandas** and **Linux**.

Product Development Intern @ Okra Solar

July 2018, Phnom Penh, Cambodia

- Built Grafana Dashboards for system monitoring using **SQL** and **InfluxDB**.

Engineering Projects

- Built Raspberry Pi based self-driving car. Used Python, Keras, Tensorflow and OpenCV
- Taught UR5 Robot arm to throw objects using Google self-supervised ML algorithm 'playLMP'. Used Python, pyBullets, UR5, ROS and Google Colab. (Journal-style report available on request)