Soleiman N. Anwary

Process Systems Engineering Finalist

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Sol3iman

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Skills

Python
- Numpy, Scipy, Sklearn, Pandas, Matplotlib, Plotly

SQL
- MySQL; structure, author and manage databases.

UNIX
- Experienced with Unix & Emacs.

Tableau and LaTeX
- Can create user dashboards and manage data streams using Tableau.
- Can professionally typeset documents using LaTeX.

Projects

Consultant Engineer Pyropower
- Structured the strategy of design for a portable biofuel power plant.

Tsinghua Summer School 2018
- Collaborated with international students on a project comparing Li-ion batteries and Hydrogen Fuel Cells.

Languages

English, German, Farsi
- Fluent in all three languages.

Clubs

- I write blogs about software, hardware, technology, and science.
- Imperial College Basketball.

Education

Oct. 2017-Present — **Imperial College London** — Engineering, MEng - 2.1
- My masters thesis focuses on the integration of artificial neural networks in automatic parameter tuning of PID controllers.
- My focus lies with advanced optimisation and operations research as well as dynamic systems both physical and biological.
- I have experience managing large scale engineering projects which involve programming and development of control models for chemical processes.

Oct. 2014-Jun. 2016 — **University of Cambridge, St. Catharine's College** — Medicine, MBBS
- I studied Medicine as part of the Medical and Natural Sciences Tripos before switching to pursue a degree in Engineering.

Sept. 2011 - Jun. 2014 — **Canons High School** — GCSEs and A-levels
- 10 A*s at GCSE and 5 A*s at A-level for Maths, Physics, Chemistry, Biology, and EPQ (99% average).

Jun. 2014-Present — **Awards & Prizes**
- I am a Thermo Fisher Engineering Scholar; Crest Gold Award for excellence in undergraduate research in 2014.
- Nuffield Science 1st Prize for modelling of blood vessel generation.
- SensUs Biosensor Design Finalist 2019.

Experience

Oct. 2020-Present — **Imperial College London** — Optimisation & Machine Learning Group, Researcher
- I am building on my work on adaptive PID controller tuning by considering RL techniques and Gaussian Processes for parameter optimisation.
- Furthermore, I am adapting Iterative Learning Control from robotics for optimal trajectory tracking, which involves application of optimal control theory, to chemical process design to achieve better process performance.
- I am using Reinforcement Learning policy gradient methods to optimise batch process temperature control.

Jun. 2020-Oct. 2020 — **BlackRock** — Portfolio Analytics Group, Data Science
- Created an ESG data retrieval pipeline from Morningstar and Sustainalytics.
- Designed a data dashboard for ESG risk profiles using Plotly, and Tableau.
- Developed a deep understanding of **financial markets**.
- **Presented** the dashboard to portfolio managers and stakeholders.
- Used the Aladdin software suite and Explore (BlackRock) portfolio software

Jun. 2019-Sept. 2019 — **SensUs Biosensor Competition** — Engineering Lead
- Worked as part of a team of 11 Imperial students to develop a biosensor prototype for the treatment of arthritis.
- Managed 4 engineers to work under stringent time constraints.
- **Presented** our prototype and poster at the 2019 Eindhoven SensUs competition final to a senior panel of judges.

Mar. 2019 (1 week) — **Deutsche Bank** — Technology Spring Intern
- Learned about agile project management and software development for personal banking while gaining insights into financial engineering.

Jul. 2018-Oct. 2018 — **Signol ltd.** — Data Science Intern
- **Managed** the initial stages of the data life-cycle from the data collection to cleaning, and visualisation of aviation data from two airlines.
- Created presentations for stakeholders outlining key trends in the data to a non-technical audience.
- **Liaised** with international clients and took the lead in technical calls to retrieve data requirements.

Sept. 2015-Present — **Oxbridge Applications** — Premier Tutor & Mentor
- I give tutorials in STEM subjects and offer university application support.