



Education

Imperial College London: MEng Civil Engineering 75% (First class honours expected) Sept 2018 – June 2022

- o Placed top 15% of the cohort with strong A grades in modules including Business and Project Management, Computational Methods, and Statistics.
- o Extended core knowledge with the 3 Data Camp Python modules, a Corporate Finance elective and design projects using FE and CAD software
- o Designated as the ICL Ambassador of Proprep UK, representing company at journalistic media interviews, including a Telegraph Cover Story.

Concord College UK: GCE A-level: A*A*A*A*A and GCSE: 11 A*s Sept 2014 – June 2018

- o Appointed as an Academic Scholar (rank: 5/186) and Head Prefect for Marketing with 99% in A-level Maths, 6 Golds in Olympiads and Challenges.
- o Received the Vinspired V50 award through a fundraising initiative that raised £6000 and provided 105 children in Gambia 2 years of education.
- o Inspired peers by starting a Business and Finance society and led a TED-style talk to 60 people on *Why bridges stand* from unique perspectives.
- o Managed a NASA *Radio Jove* project spanning across 2 years, including building a radio telescope to collect and statistically analyse emissions data.

Experience

Co-founder and Web Designer Harlow Design Ltd Sept 2020 – present

- o Founded a web design and management company that aims to rejuvenate client's online profile with Wordpress, SEO and modern graphics.
- o Addressed specific needs and strategic objectives, including a COVID-secure solution that generated £7,000+ for the client in the first 4 months.

Engineering Consultant (permanent part-time) GEARED Consulting Partnerships July 2020 – present

- o Led engineering designs (Trimble) and AutoCAD drawings for 3 projects, covering residential conversions, extensions and sway frames.
- o Initiated standardisation by developing Excel templates (VBA Macros, VLOOKUP) which accelerated building control reports writing.
- o Achieved the optimum utilisation (80% of structural capacity) using detailed hand calculations and Tedds, complying to regulations (Eurocodes).

Civil Engineering Consultant (internship) BWB Consulting July 2019

- o Collaborated technical design, drawings and details using Civil 3D for drainage, levels and earthworks for DP World London Gateway plot 4020B.
- o Optimised drainage performance analytically in 100-year storms (full pipe utilisation with 0% flood risk) using advance MicroDrainage models.
- o Presented on-site emergency risk mitigation solutions and drafted the construction compliance inspection report.

Extracurricular

Vice Chair and Founder of Project Comoros Imperial College Engineering Change Jan 2020 – present

- o Initiated an educational project with a local NGO aiming to improve facilities that can provide young people access to education.
- o Tasked to complete technical design and construction delivery management for a 30m x 20m RC dormitory with challenging material constraints.
- o Leading jointly 4 teams of 5 members, managing marketing, fundraising £2000, liaising with external parties and delivering engineering design.

CSP Chair (Rail and Transport) City and Guild's College Union July 2019 – present

- o Refreshed branding with modern HTML website and proposed 3 new events with other universities which boosted memberships by 250%.
- o Secured £450 external funding through effective communication which made events affordable to members (50% reduction to ticket cost).
- o Volunteered for Ffestiniog Railway (assisted the installation of 20m power cables and pairs of tracks), developing practical site-based knowledge.

Volunteer Teaching Assistant and STEM Mentor Imperial College Outreach Jan 2019 – Mar 2020

- o Completed 400+ hours of tutoring (1-2-1, group and masterclasses) in 2 programmes that aim to help students from state-school backgrounds.
- o Encouraged extended problem-based discussions with 6th formers, which enabled creative learning and helped students achieve an A* grade.

Projects

Technical Essay: Effectiveness of London's cycle schemes

- o Argued the effectiveness from a unique viewpoint with evaluative judgement of compromises and specific reference to the contexts.
- o Awarded an unprecedented mark of 98% for an original essay.

Statistical Analysis of hydrological data

- o Fitted multivariate distributions to investigate rainfall and temperature relationship in hydrological applications, e.g. flood management.
- o Applied statistical tests justifying suitability of models at 99% confidence.

Reports on strategic business and risk management

- o Concluded Tideway Project's success is due to strategic procurement, positive environment impacts and effective risks mitigation.
- o Examined the effectiveness of London 2012 management framework.

BuroHappold Astana urban planning (group project)

- o Created an adaptive modular 50-year masterplan using AutoCAD, showcasing an all-in-one sustainable demand-responsive smart system.
- o Commended for outstanding teamwork and innovative considerations.

Structural Design (group projects)

- o RC and steel building: frame members and connections (Eurocodes).
- o Aluminium plate girder beam: linear buckling analysis using ABAQUS.
- o Offshore Oil Rig: wave and current induced fluid loading design.

Frame Analysis using Finite Element Method

- o Solved the plastic collapse of a 2D frame using incremental elastic analysis via Finite Element on systems of partial differential equations.
- o Improved data structures using object-orientated programming.