
Education

Imperial College London // MEng Design Engineering // First class Honours

2016 - 2020

A multi-disciplinary degree focusing on the engineering theory and design of products, services, experiences and systems, within a focus on user-centred design thinking and a culture of enterprise.

- Modules taken: Engineering (materials & manufacturing, mechanics, electronics), Computing (data science, optimisation, robotics), Design (service, sustainability, psychology), Enterprise (management, product marketing).
- Final-year group project: Cultive - a soil sensor and data analytics platform providing holistic water management for farmers affected by climate change. Attracted £2,500 in awards to conduct user research and prototyping, participated in the Imperial Enterprise Lab Pioneer Fund program, and chosen to exhibit and pitch at Global Grad Show 2020.
- Design Engineering Society Operations Manager: organised events, and inaugural hackathon and exhibition activities for the department student body. Awarded 2018/19 "Club, Society & Project of the Year" by Imperial College Union.

Experience

Ocado Technology // Mechanical Design Engineer // London, UK

May 2023 - Present

Fulfilment robotics and warehouse automation solutions for grocery companies worldwide.

- End-to-end design development, prototyping and commissioning of warehouse-scale mechatronics products, structures and systems, as a member of the Automated Storage and Retrieval Systems (ASRS) engineering team.

TGO // Mechanical Engineer (Consultant) // London, UK

Feb 2023 - Apr 2023

Human-machine interface solutions for automotive, consumer electronics and gaming applications. Led concept development and production tooling modifications for a VR controller project.

Arrival // Design Engineer, Vehicle Platforms // London, UK

Feb 2021 - Dec 2022

An electric vehicle manufacturer developing commercial buses and vans.

- Had ownership of a system of components during pre-production prototype phases, with a focus on vehicle interior cockpit & console structures and panels, human-machine interface electronic modules & sensors.
- Responsible for ensuring design maturity and requirements (regulatory, functional, cost etc.) were in line with vehicle programme objectives, balancing internal cross-functional stakeholder considerations such as compliance, product, industrial & UX design, occupant ergonomics, integrity, quality, manufacturing and assembly, and procurement.
- Designed and released CAD and technical drawings, including plastics, metals and composites. Performed studies (e.g. packaging schemes, static FEA and tolerance analysis) to justify proposals. Authored technical documentation (requirements specification, DFMEA and verification test plans) to conduct systematic product validation.

Presso // Design Engineer // Atlanta, USA (remote)

Jul 2020 - Feb 2021

Rapid and distributed dry-cleaning automation robotics for hospitality and real estate industries.

- Contributed to engineering and manufacturing of Presso kiosk prototypes, for remote pilot trials across cities in US. Focused on continuous improvement of mechatronic and customer-facing product features to improve reliability.
- Created and owned digital assets - website, kiosk touchscreen UI, user guides, fleet monitoring data dashboard.

Presso @ HAX // Design Engineer Intern // Shenzhen, China

Apr 2019 - Sep 2019

HAX is an early-stage investor and accelerator for hardware startups.

- Contributed to Presso's early growth during pre-seed incubation as the first and only hire. Delivered a proof-of-concept prototype unit from scratch, which demonstrated the core technologies of garment cleaning & pressing to prospective customers and investors. Pitched at HAX Demo Day and Hong Kong RISE Conference.
- Co-authored patent - N. Jain, T. Corens, K. Li [pending]: Laundry Apparatus. US20210230789A1

Skills

End-to-end mechanical product development
Manufacturing for rapid prototyping and high volumes
Systems development lifecycle (v-model, waterfall, agile)
Mechatronics & IoT prototyping (Raspberry Pi, Arduino)
User research methodologies (qualitative and quantitative)
Mathematics and programming for data science
Business modelling and pitching

Toolkit

CAD: Siemens NX, Solidworks, Onshape, Fusion 360
Analysis: Python, SQL, MATLAB
Front-end Prototyping: Figma, HTML/CSS/JS
Adobe Creative Suite: Illustrator, InDesign, Premiere Pro
Languages: English, Cantonese & Mandarin Chinese