JACK DAVIES

MECHANICAL DESIGN ENGINEER

CONTACT

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PERSONAL STATEMENT

I have a deep rooted interest in new technologies and innovations within the engineering and technology industry.

My recent work at Etergo has enabled me to rapidly progress my skills in a wide range of engineering disciplines as well as gain a wide range of business and project management knowledge.

My interest in product design & engineering began at a young age; I have always been intrigued by how things work, and I am always taking things apart. This passion has remained and I have gained an extensive amount of engineering experience by designing and building a range of products both professionally and in my spare time.

I am highly motivated and love working with others to achieve a common goal. I embrace change to facilitate better ideas and find solutions to problems.

EDUCATION

BSC (HONS) DESIGN ENGINEERING

NOTTINGHAM TRENT UNIVERSITY, UK

Graduated with First-Class Honours. BSc course involving a varied program of study, including a strong basis on manufacturing and functional engineering product design.

DIPLOMA IN PROFESSIONAL PRACTICE

NOTTINGHAM TRENT UNIVERSITY, UK

Awarded for completion of a year long technical placement in industry during my degree course.

A LEVELS

CHESLYN HAY HIGH SCHOOL, UK

- Product Design
- Business
- Art & Design
- Media Studies

EXPERIENCE

ETERGO • MECHANICAL DESIGN ENGINEER

DECEMBER 2018 - PRESENT

Involved in the entire engineering cycle for the production AppScooter. Part owner of 12 highly integrated parts from concept stage to final engineering and supplier handover.

Detailed knowledge of many manufacturing processes and DFM, specifically injection moulding, metal stamping, sheet metal and machined parts.

Assisted with development of many other parts of the scooter and high level of collaboration with electrical, software and manufacturing teams.

AUTODESK • MECHANICAL DESIGN ENGINEER

OCTOBER 2017 - DECEMBER 2018

Technical CAD work using Fusion 360 involving a range of projects, mainly focusing on concept automotive designs, and a wide range of manufacturing process optimisation.

Research and development into generative design for engineering and advanced mechatronic modeling. Electronic PCB layout.

3D HUBS • RAPID PROTOTYPING EXPERT

OCTOBER 2016 - AUGUST 2017

I worked in many areas including single handedly executing a project with HP to design and manufacture a 3D printed electric skateboard.

Technical customer support, company CAD training, writing technical articles, a book chapter on reverse engineering and many other projects.

UNDERGROUND ENGINEERING • FOUNDER

JULY 2015 - PRESENT

Engineering company that I started for personal projects and consulting work. Projects mainly involve product prototypes, manufacturing machinery design and electric transportation products.

ABILITIES

Certified Mechanical Design Associate (C-BAVAGRY7TA) in Solidworks, experience including FEA, plastic mould design & sheet metal as well as A surfacing, part and assembly modelling.
High level of expertise in Fusion 360, Inventor, AutoCad, Keyshot & Adobe CC.

Electronic engineering skills and expertise in Eagle CAD and Altium Designer with PCB layout and schematic design. Experience with embedded systems and C programming.

Experience of rapid prototyping and 3D printing technologies, including design of 3D printer hardware and operation of a professional print lab and workshop.

Strong interest in making and building. I have completed many personal projects including scratch built 3D printers, CNC router, injection moulding machine, racing drones, electric bikes and electric skateboards.

Experience operating industrial machinery including Haas CNC machines, manual and CNC lathes and mills, FLOW water-jet and plasma cutters as well as injection moulding and tool design.

I have always had a deep rooted interest in electric vehicle technology and have completed a wide range of EV projects, including many Li-ion battery pack builds, drivetrain and system architecture design.