JACOB GIBSON

Mechanical engineer

PERSONAL STATEMENT

I am a versatile mechanical engineer with skills and experience in project management, computer-aided design, development and quality assurance. I have experience applying artificial intelligence (AI) solutions to engineering problems. I enjoy problem solving, improving machine or other design components, and enhancing products and manufacturing lines, especially with regards to energy efficiency. I would love to share this passion as part of your team in the future.

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SKILLS

- *CAD Software*
- *Fluid Mechanics & Thermodynamics*
- *AI and ML for engineering*
- *3D modelling*
- *Python and R*

LANGUAGES

- *English*
- *French*

HOBBIES

Volleyball, design, outdoors and hiking, music and concerts, reading

EDUCATION

2:1 MEng (Hons) Mechanical Engineering

Nottingham Trent University — *2016 - 2021*

Key skills gained:

- Using common CAD software packages (Catia, Autodesk, etc)
- Finite-Element-Modelling (FEM) in with common softwares in 3D
- Using Deep Learning techniques for *image based part classification*
- Concept and product development
- Anomaly detection through Machine Learning
- Material Science and design
- Producing detailed technical drawings, schematics, concept designs and design calculations using industry-standard software
- Applied projects on electrical and mechanical engineering and placement year for practical experience

Notable modules: 'Computational Fluid Dynamics (CFD) with ANSYS, 'Robotics, Cybernetics and Biomechatronics', 'Performance Engineering', 'Human Factors Engineering', 'Industrial Design', 'Control Systems', 'Materials and Manufacturing', 'Digital Systems and Computer Engineering'

Tapton Secondary School — *2014 - 2016*

A-level passes in three subjects: Physics (A), Maths (B) and English Literature (B)

Tapton Secondary School — *2009 - 2014*

11 GCSEs, grade A*-C including Maths and English

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WORK EXPERIENCE

Placement year

Pirelli - Tyre manufacturer, Burton-on-Trent — *2018 - 2019*

- Participating in various phases of product development, including conceptualisation, creating models, developing designs, creating prototypes, performing tests, and producing the new product
- Developed a machine learning (ML) approach to anomaly detection in the production process
- Developed drawing packages for assembly following fabrication
- Providing technical support during the preparation and coordination of design used in industrial projects
- Controlling manufacturing and delivery processes

3-month summer internship

BAE Systems - Arms and security, London — *2017*

- Product testing, in collaboration with other engineers and industrial designers
- Applied AI methods to improve product evaluation with large-scale expeirmental databases in Python
- Designed and modelled functions using pre-defined parameters and specifications on specifically taylored machines
- Providing technical support to operations projects, including field work

ADDITIONAL EXPERIENCE

Online courses

- Product Design, Prototyping, and Testing (on edX.org)
- Machine Learning Engineering for Production MLOps (on coursera.org)
- Digital Manufacturing and Design (on coursera.org)
- Python for Data Science (on edX.org)

Youth club volunteer

M8S Youth Club, Nottingham — *2017 - today*

Helping children with learning disabilities and supporting them in activities such as indoor and outdoor games, cooking, reading, and on outings like hiking trips, bowling or canoeing

REFERENCES

References will be provided upon request