Kitty Farren

Graduate Engineer at Nidec Control Techniques

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🔗 kitty-farren   🔗 kitblafar

👤 ABOUT

I am a Master of Electrical and Electronics Engineering graduate from the University of Nottingham with over 4 years experience as an engineer in the industrial automation sector working in various technical departments.

🔧 SKILLS

Engineering — Variable Speed Drives (VSDs) EMC Design and Testing Power Electronic Design Digital and Analogue Electronic Design

PCB Layout And CAD — KiCAD DxDesigner Blender FreeCAD

Software Development — C C++ Python IEC StructuredText VBA SQL VHDL JavaScript Figma

Simulation — CST Microwave Studio Simetrix PLECs LTSpice

🏢 WORK EXPERIENCE

Control Techniques

📅 Jul 2019 - Jul 2024
🕐 5 yrs 0 mos
📍 Powys, Wales, United Kingdom

● Graduate Engineer

📅 Jul 2022 - Jul 2024 🕐 2 yrs 0 mos

This role included rotations in different departments to broaden my engineering skill set

- In Power electronics I designed and created an upgraded IGBT thermal testing device; created new python tools for digital twin development and research novel current sensing technology for next gen drives.
- In the ECAD department I layed out a production quality family of boards (FOB); created an internal KiCAD set of standards and user guides; created a manufacturing board to test DFM processes and aided the India team in creating layouts.
- In Tech Support I answered customer tickets; solved field failures; created recruitment resources; wrote a Python dataprocessing tool to sort user data from a documentation site and wrote a specification for an app using Figma.
- Finally in the Control department, I developed a C# program to process large amounts of data using a mesh algorithm.

● E3 Student Engineer

📅 Jul 2019 - Jul 2022 🕐 3 yrs 0 mos

Summer placements at Nidec Control Techniques through the E3 Academy Scholarship Scheme:

1st Placement (2019): EMC and efficiency testing prototype control boards. SIMetrix circuit design software, soldering and proto-board creation, EMC testing experience.

2nd Placement (2020- COVID limited): Review of strings used in drives for easy of use. Attempting to simplify drive usage. Customer focus.

2nd Placement (2021): Automatic elevator drive software testing suite. Software architecture and design, StructuredText, awareness of software development timeline.

🎁 VOLUNTEER EXPERIENCE

STEM Ambassadors

https://www.linkedin.com/company/562727

📅 Sep 2021 - Sep 2021
🕐 0 yrs 0 mos

● STEM Ambassador

📅 Sep 2021 - Sep 2021 🕐 0 yrs 0 mos

STEM ambassadors aims to raise the awareness and understanding of STEM careers. As a STEM ambassador I have attended careers events, done classroom showcases and lead computer workshops. I have created some cool STEM resources to go along with these classes like the "build a pepper colour detecting circuit" and the "pneumatic conveyor belt controller". I hope that by being a visible woman in the field I can encourage young women to consider STEM careers.

- Promoting STEM for young women and being visible as a women in the field.
- Running classroom workshops giving students hands-on experience prototyping circuits and making links to real-world applications.
- Running and developing interactive demonstrations of electronics and control systems at careers fairs.
- Giving presentations and Q&A sessions to help de-mystify the field and careers in STEM subjects

- Giving presentations and Q&A sessions to help de-mystify the field and careers in STEM subjects.
- Improving my communication skills with those not in technical roles.

🏆 AWARDS

Peter John's Award for Outstanding Final Year Student
The University of Nottingham

Michael Bromwich Award for the Two Highest Achieving Home Students
The University of Nottingham

🎓 EDUCATION

University of Nottingham
📅 Dec 2018 - Dec 2022

Master of Engineering - MEng IET Accredited Electrical and Electronics Engineering (1st (Hons))

- Individual project: "A Framework for Plenoptic HDR Imaging using Metasurfaces"
- Computer Aided Engineering
- Power and Energy
- Information and Systems
- Electronic Processing and Communication
- Electrical Energy Conditioning and Control
- Contemporary Engineering Themes
- Modelling Methods and Tools
- Electrical Machines, Drive Systems and Applications
- IT infrastructure and cybersecurity
- Analogue Electronics
- Sensing Systems
- Professional Studies
- Digital Signal Processing
- Instrumentation and Measurement
- Advanced AC Drives
- HDL for Programmable Devices
- Group Projects: Autonomous RC Car (incl line following), SMPS design and creation, Doppler radar gun, Car telemetry system- full stack JavaScript web-application created

66 REFERENCES

| Ed Peate

✳ META

Languages English (Native Speaker) German (Limited Working)

Interests Crochet and Needlework 3D modelling (Blender) Electronics and Programming Painting Running