



Johnny Zajac

CONTACT

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SKILLS

- Excellent communication skills
- Hardware development process
- Architectural and detailed requirements management
- Power electronics and mixed-signal circuit design
- Circuit simulation in LTSPICE
- Schematic and PCB Layout (Altium, Mentor, OrCAD, DesignSpark)
- Macros and software design (C, C++, Arduino, Excel VBA)
- Awareness of motor control techniques (VF, FOC)
- Test plan management (Electrical, Environmental, Mechanical, EMC)
- Knowledge of industrial and automotive standards

PROFESSIONAL SUMMARY

'Conscientious and pragmatic Hardware Engineer with experience of developing volume industrial and automotive power electronics. Capable of executing projects from concept to production with a well-rounded technical expertise, clear team communication and a goal-driven approach.'

Responsible for design and testing of hardware for industrial and automotive electric drives and power supplies, 3-200kW, 12-800V. Experienced in hardware development lifecycle, through requirements, design, test and manufacture. Strong communication skills within the organisation at all levels, and comfortable in front of customers and suppliers.

WORK HISTORY

Hardware Engineer (10 months)

06/2021 - 04/2022

Turntide - Newcastle Upon Tyne

- Created our Hardware Design process to ensure consistently professional work products
- Designed and tested a range of HVAC variable speed drives 3-17kW, 180-633Vac
- Responsible for integrating junior team members and managing their work

Hardware Engineer (4 years)

06/2017 - 06/2021

BorgWarner - Newcastle Upon Tyne

- Worked on seven projects, experiencing all stages of the product lifecycle from concept to serial production
- Developed industrial and automotive electronics, specifically VSDs (variable speed drives) and power supplies in the range of 3 - 200kW, 12-800VDC
- Designed a flagship VSD to ASIL-D (ISO26262), aimed at volume manufacture (100k/y); specified requirements and created schematic and PCB layout
- Delegated tasks to Technicians and Engineers whilst executing verification test cycles
- Directed validation test cycles for multiple products in our facility and at an external test house
- Presented multiple 8D investigations to our customer following my analysis and correction of design issues
- Managed communications with our suppliers for critical and custom components

Electronics Student Summer Placement

06/2015 - 08/2015

Plextek - Cambridge

- Worked at a radio electronics consultancy, developing antenna designs and image processing algorithms.

- Performed effectively as a team member and leader with the responsibility of daily operations and training/delegating new staff.

EDUCATION

MEng (Hons): Electrical and Electronic Engineering, 06/2017

Newcastle University

First Class

- UKESF Scholarship (2015)
- R.A.Batey scholarship for outstanding academic results (2014)
- Nominee for the Sir William Siemens medal (2014)
- Student course representative (2013-2017)

2013

Whitley Bay High School Sixth Form

Physics(A), Mathematics(A), History(B), General Studies(B)

CAREER BREAK

05/22 - 08/22 - Brief career break to travel around the UK, Italy, Egypt, Jordan, Turkey and Thailand.

REFERENCES

On Request