

CASEY MCARDLE

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SUMMARY

Motivated Electronic Engineer with seven years of production and design experience, seeking a dynamic Front-End Web Development role. Dedicated to crafting captivating user experiences by leveraging technical skills and creativity. Committed to continuous self-improvement and aspiring to evolve into a proficient full-stack web developer. Passionate about making a significant impact in the field

PROFESSIONAL EXPERIENCE

Protec Fire Detection (Bosch Family)

Design Engineer, September 2019 - Present Nelson, Lancashire

- Optimised the factory test procedure at Protec Fire Detection by developing multiple highly efficient Interactive Test interfaces using JS/HTML/CSS technology. Resulted in a significant reduction in product lead times and increased throughput, improving overall operational efficiency
- Implemented JavaScript-based solutions for seamless microcontroller interfacing using the Johnny-Five.io platform and Node Serial Port. Streamlined the integration process, leading to improved efficiency and reduced processing time for microcontroller tasks
- Enhanced the calibration process of smoke detectors by integrating the Canvas Gauge API into web-based user interfaces. Provided operators with intuitive visual feedback, resulting in improved accuracy and user experience during the calibration process
- Led the design and development of a cutting-edge loop driver using an Arduino and a Power Op-amp, replacing outdated hardware. Improved maintainability and reduced downtime, resulting in enhanced system reliability and easier maintenance procedures - also 5V USB capable, expanding the device's compatibility and increasing its potential for integration with various systems

Avalon Design

PCB Design Engineer March 2022 - Present (Remote)

- Maintained up-to-date knowledge of new component manufacturers & their offerings to ensure the use of the latest technologies in client projects
- Utilised cutting-edge Surface Mount Device (SMD) technology to modernise legacy designs
- Upgraded outdated through-hole architecture with SMD components, enhancing the overall product quality & longevity, whilst increasing profit margin

Protec Fire Detection plc

Production Engineer, May 2016 - September 2019

- Collaborated with cross-functional assembly teams to build and test complex electronic designs, continuously refining and optimizing processes for improved performance and efficiency. This resulted in enhanced product quality and reduced manufacturing defects.
- Developed a comprehensive fault and common repairs database, transforming product testing and troubleshooting. By empowering non-technical operators to perform repairs using the database, costly engineer callouts were minimized, leading to reduced downtime and cost savings.
- Established a rigorous testing and troubleshooting methodology, ensuring optimal performance and quality assurance. This methodology contributed to improved product reliability and customer satisfaction by minimising product failures and customer complaints

SKILLS

- Javascript (ES 6+)
- HTML5, CSS3
- React JS
- CSS Frameworks: Bootstrap, Tailwind CSS
- Version Control: Git
- UI/UX Design Principles: Figma
- Responsive Web Design
- Front-End Testing: Jest
- RESTful APIs
- Familiarity with databases: JSON & SQL
- Build tools: Webpack, Vite JS

EDUCATION

BEng Electronic & Electrical Engineering

First Class Honours Degreee, University of Central Lancashire 2016-21

INTERESTS

- Personal Development: Embracing the Kaizen principle for continuous improvement in all facets of life
- Music: I have a deep passion for music and its profound connection to creativity, expression, and the beautiful interaction that occurs when playing together with others
- Philosophy: Love debating especially around Ethics - inspired by thinkers such as Joseph Fletcher, Kant & Aristotle
- Travel: I am also enthusiastic about exploring new places and immersing myself in different cultures, as it broadens my perspective and fuels my sense of adventure