Contact

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Stephen.carw@outlook.com

www.linkedin.com/in/stephen-carew (LinkedIn)
stephen-carew.github.io (Portfolio)

Top Skills

IP Addressing
IP Subnetting
Routing

Languages

English (Native or Bilingual)
Portuguese (Professional Working)
German (Limited Working)

Certifications

CCSx: Climate Change: Carbon Capture and Storage
CCNA: Introduction to Networks

Stephen Carew

Electrical and Electronics Engineer [BEng Hons] | Pursuing Instrumentation & Control Engineering MSc | Full Stack Developer
Middlesbrough, England, United Kingdom

Summary

I have a background in Electrical and Electronics Engineering and a solid foundation in Full-Stack Web Development. Right now, I'm diving deeper into the world of Instrumentation and Control through my Master's at Teesside University.

I am passionate about using tech and engineering to make a real difference whether that's building smarter, more efficient systems or creating tools that support sustainability and safety. I love tackling tough problems and finding practical, future-focused solutions.

Always open to opportunities where engineering, technology, and sustainability come together, especially with teams that care about making an impact.

Currently based in Middlesbrough, England.

Web Development Portfolio: https://stephen-carew.github.io

Experience

The University of Law
Computer Science Technician
September 2025 - Present (6 months)
Leeds

As a Computer Science Technician, I played a key role in supporting the delivery of undergraduate and postgraduate Computer Science programmes by providing specialist technical expertise across teaching laboratories, student projects, and research-focused activities in both blended and online learning environments.

My responsibilities ranged from configuring, maintaining, and troubleshooting computing and networking systems used across Software Development, Web Technologies, Databases, Networks, Cyber Security, and Cloud Computing

modules, to acting as a primary technical point of contact for students and academic staff. Through proactive support and clear technical guidance, I helped ensure reliable, safe, and effective use of laboratory systems throughout the academic year.

Alongside day-to-day technical support, I contributed directly to curriculum delivery by leading the technical design and development of a laboratory workbook for the Cloud Computing and Distributed Systems Fundamentals (MSc) module. Leveraging industry-standard tooling and workflows, I focused on creating practical, technically robust labs that aligned closely with real-world cloud and distributed systems practices.

To support the delivery and assessment of the module, I also led several supporting technical initiatives. I established and onboarded a dedicated GitHub Organisation under GitHub Education, enabling access to private repositories, GitHub Actions, and classroom tooling to enhance both teaching and assessment workflows.

In addition, I designed and developed a centralised cloud onboarding and lab management platform, providing a single pane of glass for the full lab lifecycle. The platform enables automated student onboarding using university identities, validation of cloud environments (AWS), one-click provisioning of student repositories from templates, and a unified dashboard for lab modules, repositories, grades, feedback, and code activity analytics.

Bluefoot Labs

Full Stack Developer

February 2025 - May 2025 (4 months)

Arkansas, United States

As a Full Stack Developer I have played a key role in designing and implementing a sophisticated dashboard application that seamlessly bridges traditional web technologies with blockchain infrastructure.

My primary responsibilities were architecting the entire frontend infrastructure using Next.js, TypeScript, and React, while integrating complex Solana blockchain functionalities including wallet connectivity, NFT management, and digital asset customization capabilities. I also implemented robust payment processing through Stripe integration and established secure transaction handling mechanisms, ensuring safe and reliable financial operations throughout the platform.

Additionally, I actively contributed to the optimization and maintenance of the application's codebase through continuous refinement cycles, addressing overlay dialog panel functionality, implementing form validation using Radix UI component libraries, and enhancing user interface responsiveness with Tailwind CSS. Through systematic debugging, detailed logging implementation, and collaborative problem-solving, I identified and resolved critical issues such as billing transaction duplications and overlay rendering inconsistencies, significantly improving application stability and user experience.

I also developed expertise in managing complex project dependencies, including the integration of Metaplex Foundation libraries for NFT operations, Prisma ORM for database management, and various Solana ecosystem tools. This project provided me with valuable experience in full-stack development, blockchain integration, and agile development practices, contributing to a production-ready application that successfully serves its intended user base through continuous deployment on Vercel.

Grindrod

Electrical and Automation Engineer

April 2024 - October 2024 (7 months)

Matola, Maputo Province, Mozambique

As an Electrical & Automation Engineer Intern from April to November, I have played a key role in optimizing and maintaining electrical and automation systems to support efficient operations.

My primary responsibilities ranged from preventative and corrective maintenance on electrical and automation systems across the plant as well as working with SAP to establish and manage functional locations, enhancing equipment traceability and streamlining maintenance planning.

Additionally, I actively participated in planned shutdowns, working closely with external companies to modernize systems, implement and or improve safety protocols, and ensure smooth project execution. Through collaborative problem-solving and thorough fault analysis, I contributed to operational improvements and supported critical system upgrades, leading to substantial cost savings for the organization.

I also had the opportunity to develop project management skills while overseeing a sustainable energy initiative involving the installation of solar panels for the new administrative building. This role involved conducting detailed calculations on expected power generation, assessing necessary resources, and evaluating the project's feasibility and potential impact.

Dummified Labs
Full Stack Developer
May 2023 - March 2024 (11 months)
United States

As a Full Stack Web3 Developer, I have designed and implemented sophisticated DeFi and NFT marketplace platforms, demonstrating expertise across smart contracts, blockchain integration, and modern frontend development.

Staking Platform: I architected an innovative full-stack Web3 platform combining Rust Anchor smart contracts with Next.js TypeScript frontend. I implemented token distribution mechanisms, multi-seat staking architectures, and program-derived accounts (PDAs) enabling dynamic token accrual and real-time yield calculations. On the frontend, I integrated Solana wallet adapters, developed custom React hooks for blockchain synchronization, and built interfaces for seat management and staking transactions. I systematically optimized transaction costs through strategic account management and batching, achieving significant fee reductions while maintaining security.

Traitshop Platform: I built a comprehensive NFT marketplace platform, designing a scalable Ambassador & Affiliate system with role-based tiers and dynamic commissions using TypeScript, React, and Prisma. I resolved critical CORS issues through a server-side proxy API architecture, consolidating endpoints for better maintainability. I enhanced mobile responsiveness with responsive design and mobile-first navigation, improved file upload reliability with collision-prevention mechanisms, and implemented accessibility standards across components. These improvements drove increased user engagement in monetization features.

Core Competencies: Full-stack Web3 development, Rust smart contracts, Next.js/React, Solana blockchain architecture, API design, Prisma database management, responsive design, and accessibility standards. My experience spans designing scalable systems, optimizing performance, and delivering production-ready applications across DeFi and NFT ecosystems.

Grindrod Terminals

Electrical and Automation Engineer

December 2022 - March 2023 (4 months)

Matola, Maputo Province, Mozambique

As an Electrical and Automation Engineer Intern at Grindrod Terminals, I had the unique opportunity to immerse myself in a dynamic and cutting-edge industrial environment. This internship provided me with invaluable hands-on experience and exposure to the world of electrical engineering and automation within the logistics and port terminal industry.

I actively contributed to the improvement of electrical and automation systems within the terminal, working on projects that streamlined operations, increased efficiency, and enhanced safety protocols. My role involved preventative and corrective maintenance of control systems, PLC programming, and optimizing sensor networks as well as working with operation panels, VSDs, motors, conveyor belts, trip wires and various other electrical and automative components in and around the plant.

I also gained expertise in diagnosing and resolving electrical issues across various equipment and systems. This included conducting detailed electrical tests, identifying faults, and collaborating with the engineering team to implement effective solutions.

Lastly throughout my internship, I had the privilege of collaborating with a talented and diverse team of engineers and technicians. Together, we executed projects aimed at modernizing and upgrading the terminal's electrical infrastructure, contributing to its competitiveness and sustainability.

Rumble Nation

Full Stack Developer

October 2022 - December 2022 (3 months)

United States

I’ve led full-stack projects from start to finish, with a strong focus on TypeScript and Node.js. By making the most of these tools, I built scalable, high-performance systems that were not only reliable but also easy to grow and adapt as project needs evolved.

On the front end, I used HTML, CSS, and JavaScript to build clean, responsive UIs with Next.js. I’m big on creating interfaces that feel good to use —

striking the right balance between design and usability to boost overall user satisfaction.

I also designed efficient SQL databases with a strong eye for detail and best practices. This helped keep data operations smooth and reliable, making the systems more stable and easier to scale down the line.

Caresoft Lda

Information System Technician

January 2019 - January 2021 (2 years 1 month)

Maputo, Cidade de Maputo, Mozambique

I improved network performance by setting up smarter protocols and analyzing bandwidth to spot and fix bottlenecks. That helped ensure smoother communication and faster data transfer across the organization.

I also took a proactive approach to system management — troubleshooting issues quickly to cut down on downtime and keep everything running smoothly.

When complex IT problems came up, I tackled them head-on with a structured, problem-solving mindset, making sure the infrastructure stayed solid and consistently performed above expectations.

Working closely with cross-functional teams, I focused on clear communication and collaboration, which helped reduce project timelines by 15% and made it easier to roll out IT solutions quickly and effectively.

Education

Teesside University

Master of Science - MS, Instrumentation and Control · (January 2025 - January 2027)

Curtin University

Bachelor of Engineering (Honours), Electrical and Electronic Engineering Major (BEng Hons) · (March 2019 - November 2023)