

# Justin Fung

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## SUMMARY

Full Stack Engineer with expertise in modern web technologies and UI/UX design. Full Stack Engineer specializing in React, TypeScript, and scalable backend systems. Experienced leading frontend initiatives, designing production-ready applications, and building high-performance systems in Rust and NodeJS environments. Passionate about software architecture, simulation systems, and modern web technologies.

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## EXPERIENCE

### Full Stack Engineer – Clinify

Mar 2024 – Mar 2025, Leicester

- Led the UI/UX team, overseeing the design of all user interfaces to ensure seamless user experiences across the product and apply the core concept of gamification in medical education.
- Led a closed beta with 100 users, gathering product feedback that informed feature prioritization and roadmap planning alongside the CEO.
- Designed and implemented a comprehensive documentation system, reducing onboarding time for new positions by 50% and providing an accessible reference hub for ongoing systems, enhancing team productivity and collaboration.

### Frontend Engineer – DmgInc

Jan 2023 - Nov 2023, Remote

- Architected, designed, and developed a complex crafting system for an RPG feature using Figma, TypeScript, and React, increasing retention by 5%.
- Designed and developed a responsive events page using Figma and React, ensuring cross-browser compatibility and boosting mobile engagement by 15%.

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## EDUCATION

### Bachelor of Science in Computer Science

University of Leicester • Leicester, UK

Sep 2023 – Jun 2026

On track for First Class Honours

**Relevant Courses:** Algorithms & Data structures, Databases & Domain Modelling, Project Management, Software Architecture & System Developments

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## PROJECTS

### Microscopic Traffic Simulator (Bachelor Thesis)

- Developed a microscopic traffic simulator in Rust to model motorway congestion, lane changing, merging, and ramp metering.
- Implemented traffic behaviour models including IDM, MOBIL-inspired lane changing, and ALINEA ramp metering.
- Built modular architectures supporting deterministic simulations and the integration of various other systems.
- Evaluated 16 traffic scenarios under varying demand conditions, demonstrating realistic congestion and traffic flow behavior.
- Achieved 80% unit-test coverage and designed reusable, performance-focused simulation systems.
- Optimized the code flow to handle 100,000+ vehicles, road links and nodes for a performant system.

### Computer Vision (Extended Project Qualification – A-levels)

- Conducted independent research on modern image classification techniques, focusing on State-Of-The-Art CNNs, RNNs, and Transformer models.
- Fine-tuned pre-trained models using transfer learning, optimizing hyperparameters and improve performance.
- Achieved 99.95% accuracy in classifying images through data augmentation and regularization techniques.

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## PERSONAL PROJECTS

### Rust Interpreter

- Implemented a lexer, a parser and a fully functional interpreter to execute all instructions on a memory tape modeled as a Vec<u8> for the programming language developed by Urban Müller using Rust.
- This project enhanced my understanding of low-level systems programming, memory management, and Rust's ownership model.

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## SKILLS

**Languages:** English (native speaker), Mandarin (native speaker), German (A1 level)

**Front-End:** React, Figma, TypeScript, Next.JS, Tailwind, MUI.

**Back-End:** NestJS, Next.JS, Docker, AWS / GCP, PostgreSQL, Supabase, MongoDB, Go, Java, Spring Boot.