David Culemann

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University of Cambridge

Cambridge, UK

MPhil in Energy Technologies - **High Performance**

Oct. 2020 - Sep. 2021

• Co-founded a social enterprise developing sustainable solar cooking solutions for rural communities, securing £2,000 seed funding through the 2021 Parmee Prize for Entrepreneurship.

University of Southampton

Southampton, UK

MEng Mechanical Engineering - 1st Class Hons, Dean's List

Sep. 2015 - Jul. 2020



Front End: TypeScript, JavaScript, React, Remix, Next, CSS, SASS, Tailwind, TanStack Query, Cypress, Figma

Back End: Firebase, Supabase, MongoDB, Node, Express, PostgreSQL, GitLab CI, Stripe, AI SDK



Darktrace Cambridge, UK

 $Senior\ Software\ Engineer$

September 2024 - Present

- Leading UI developer recruitment and modernising the process, managing onboarding and training of new developers through pair programming, code reviews and maintaining high-quality documentation.
- Delivering and maintaining key projects, including a dynamic report generation dashboard and a real-time status monitoring web page, improving customer visibility on service downtimes and streamlining reporting workflows.
- Refactoring the monolithic codebase into reusable UI views by creating NPM packages and micro frontends.

Software Engineer

June 2022 - September 2024

- Leading UI development for Darktrace /CLOUD, the company's flagship cloud security product, while coordinating a cross-functional team of developers and designers, and collaborating with backend teams on API architecture.
- Developed interactive diagrams with **Cytoscape.js** to map cloud architectures, highlight high-risk attack paths, and guide security workflows, informed by feedback from stakeholders such as internal security and early adopters.
- Maintained an internal UI component library used across 20+ projects (1000+ imports) to promote design consistency and accelerate development by minimizing code duplication.
- Championed developer experience improvements including **GitLab CI** build automation, centralised **Prettier** rules, and **TanStack Query** for async state, driving adoption through presentations and documentation.

Carno Cambridge, UK

Founding Engineer

January 2022 - April 2022

- Founding full-stack engineer at a cleantech startup aiming to accelerate domestic decarbonisation by simplifying and optimising heat pump installation and sourcing with a mobile surveying application.
- Architected and developed the MVP mobile app using **React Native**, **TypeScript**, **Node.js**, and **Firebase**.
- Improved code base quality by introducing CI/CD pipelines covering linting, code formatting, automated testing using **Jest** and **Cypress**, and maintaining in-line and wiki documentation.

Academy London, UK

Trainee Software Engineer

August 2021 - January 2022

• Founding scholar of a selective holistic training programme covering full-stack technologies and leadership.

Rolls-Royce
Computer-Aided Quality Systems Intern

Chichester, UK

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 $September\ 2017-September\ 2018$

• Digitalised the tool tracking process (VBA), resulting in annual savings of ~£10,000 and mitigating quality risks.

PROJECTS

Corpify | https://remix-shadon-boilerplate.vercel.app/

Remix, Supabase, Shadon, Tailwind

• An open-source boilerplate for quickly launching SaaS applications with Remix, Supabase and Shadon.

EasyCV | https://easycv.vercel.app/

Remix, Stripe, AI SDK, React Hook Form

• An AI-powered career platform: resume/cover letter generation, application tracking and interview preparation.

GeoGenius | https://geogenius.vercel.app/

React, TypeScript, Figma, Firebase, Express

• A quiz app inspired by my love of geography, designed in **Figma** and implemented an auth flow with **Firebase**.