PETE HAUGH.
Software Engineer.

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I'm a highly motivated software engineer with a design engineering background. Proficient at solving ambiguous problems in a fast paced, dynamic environment, I can deliver collaboratively whilst retaining clear communication and a positive attitude. I enjoy taking on challenges, learning and delivering exciting projects.

Professional Software Projects

As well as having a wealth of professional engineering and programming experience, I am also experienced with a wide range of JavaScript frameworks, libraries and APIs, and continue to pro-actively deepen my knowledge and learn new technologies.

Tolerance Stacking Tool
Built a novel tolerance stacking application using MATLAB to determine final build specification, utilising a self-written, unit tested solving algorithm to replace existing manual methodologies. Success of software has led to uptake by Dyson's global design team.

Manufacturing Yield Calculator
Conducted Monte-Carlo statistical analysis of manufacturing yield of Dyson products using Python to predict and find process improvement opportunities. This software identified opportunities to save part wastage in the region of hundreds of thousands parts a year.

UI/UX Engineer Secondment
Accountable for defining and delivering product behaviours specification for Dyson products to software, electronics, UX, and design teams. Ran stakeholder alignment and feature T-Shirt sizing sessions to agree scope of project between cross-teams using Confluence and Jira.

Personal Software Projects

Personal Portfolio Site
A portfolio site featuring an interactive turntable was created using p5.js. As well as linking to my projects, it hosts the front end for some of my smaller projects such as my Connect Four game.

  - Typescript   - React   - React Router   - p5.js

Social Media App
A Reddit style social media app where, after logging in using OAuth, user can create posts, create subreddits, comment on posts and more. It also includes a functioning reddit-style up vote system.

  - Typescript   - Next.js   - OAuth   - GraphQL   - Apollo Client   - PostgreSQL

Messaging App
A live messaging app using Firebase Hooks to deliver messages in real-time, featuring the ability to select and add different chat rooms. Users can login in using their google account via OAuth.

  - React   - Redux   - OAuth   - Firebase Hooks

Skills

Languages
JavaScript, Typescript, Python, SQL, HTML, CSS, GraphQL, MATLAB.

Frameworks & Libraries
React, Next.js, Redux, Apollo Client, Express, Node.js, p5.js, Jest, RTL, Flask.

Databases:
PostgreSQL, MongoDB, Firebase.

Platforms:
Supabase, Sanity CMS, StepZen, Firebase, Heroku.

Tools:
Git, Jira, Confluence, Agile, OAuth, TDD, Inkscape, Framer.

Education
University of Bath – 2014 to 2019 - M. Eng (Hons) Mechanical Engineering.

Personal
Hobbyist DJ and musician. Brewing and coffee enthusiast.

Full Clean Driving License.

Cooking Blog
A cooking blog that uses a content management system to manage the content. Implemented incremental static regeneration allowing updating of static content instantly without needing to fully rebuild the site.

  - Typescript   - Next.js - Sanity CMS

Connect Four
A connect-four API consisting of the Minimax Algorithm, a self-written recursive algorithm which is used for finding the optimum move. The Flask backend sends the optimum response to a player's move to the React based interface and determines when there is a winner.

  - Python   - Flask

Professional Experience

Design Engineer (September 2019 - Present)

Dyson, Hullavington

Mechanical Design Engineer

I have worked on a large range of projects, primarily owning the design, prototyping and testing of products.

- Successfully developed several complex and time-critical components of the Dyson Zone compressor within a large multidisciplinary team whilst coordinating cross-teams and senior stakeholders.
- Championed new ways of working within team and contributed to company culture. One of four globally selected experts in Computer-Aided Design tasked with continuously improving internal review processes with senior stakeholders including James Dyson.
- Owner of general assembly of products, requiring constant collaboration with individuals across the project team to ensure alignment towards delivery of full product design to design managers.
- Managed relationships with contract manufacturers, suppliers and contractors in several countries and cultures, and successfully negotiated compromises on design with manufacturers.
- Mentored several graduate engineers aiding their approach to problem solving, time management, and communication with different stakeholders, as well as career development.

UI/UX Design Engineer (secondment)

- Accountable for defining and delivering product behaviours specification to cross teams.
- Developed user flow diagrams and user stories to ensure product features provides value for end user.

Design Engineer Intern (July 2016 – August 2017)

Dyson, Malmesbury

Personal Attributes

- Strong collaborator with significant experience working in multidisciplinary teams.
- Excellent presentation skills. Completed PR training in preparation for product releases in presence of journalists.
- Highly effectively communicator with strong ability to distil complex problems into simple, clear terms.
- Quick learning, adaptable and have a clear understanding of striking the balance between best engineering solution and fastest to implement option.
- Positive attitude to work, resilient under time pressure and continuously support and motivate teammates.
- Logical, methodical approach and strong ability to keep in mind wider business requirements.
- Excellent time management skills with the ability to manage several complex project areas simultaneously, reporting risks and inevitable slippages where relevant.