

# Matt Baughen



Graduate engineer with a mechanical & electrical background looking to specialise in sustainable & human-centred design

## Experience

### Graduate Engineer Oct 2024 → present

Thermal Energy International • Bristol, UK

- Responsible for pre-screening condensing heat recovery and boiler economiser systems, including psychrometric analysis and mass-energy balance, production of PFDs and P&IDs, and delivering project proposals and budgetary quotations
- Manage a range of data analysis tasks and technical reports, including steam meter trials, system performance reviews, and research papers
- Size and perform QA checks for custom-designed venturi orifice steam traps
- Provide on-site engineering support at a range of sites in the UK, Ireland, Germany, Spain & Greece
- Developed Python-based data processing tool for steam trap surveys which reduces required admin time by 60-70%

### Research Intern Jun → Jul 2024

University of Bath • Bath, UK

Worked alongside academics and researchers at the Centre for Climate Adaptation and Environment Research to analyse data from the European Space Agency's Aeolus satellite and develop a MATLAB-based gravity wave detection system

### Software Engineering Intern Jun → Aug 2023

3SC • Sheffield, UK

Designed unit tests and developed front-end user interfaces for a web-based customer management system and provided on-site support for a software upgrade to Heathrow's T5 pod system

## Additional qualifications

More listings & information at [www.mattbaughen.com](http://www.mattbaughen.com)

### Sustainable Engineering Design Ongoing (70%)

Professional certificate • TU Delft (online)

### Google UX Design Certificate Completed

Professional certificate • Coursera (online)

### Web Programming with Python & JavaScript Ongoing (85%)

Professional certificate • Harvard University (online)

## Education

### University of Bath 2021 → 2024

BEng (Hons) Integrated Mechanical and Electrical Engineering

First-class honours (77%)

## Skills

### Design & research

Ideation, user research & iterative prototyping (Fusion & Figma), sustainable design theory, research & data analysis

### Programming & web development

C/C++, MATLAB/Simulink, Python (NumPy, Pandas, Matplotlib, Flask, Django), HTML, CSS/Sass, JavaScript, Git & GitHub

### Collaboration & communication

Interdisciplinary teamwork, technical writing, graphic design & presentation

## Languages

**English** Native proficiency

**German** CEFR B2 (Intermediate)

## Personal projects

Learn more at [www.mattbaughen.com](http://www.mattbaughen.com)

### Container refill machines

Automated container refill machines for zero-waste stores, featuring automatic dispensing and accessibility features

### Toucan Go & Bioscore

A mobile app for zero-waste shopping and container refill systems

### AutoTare

A smart weighing platform for zero-waste stores, featuring wireless connectivity, RFID container recognition & circular design principles