

Peter Gillingham

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Personal Statement

As a software engineer, I possess a comprehensive skill set, encompassing expertise in full-stack web development, AI and computer vision tooling, embedded systems design, and proficient database management. I graduated with Upper Second Class Honours from the University of York, completing an Integrated Masters in Electronic Engineering with Music Technology Systems. Throughout my career, I have thrived in the dynamic environment of a fast-paced startup, excelling in rapid development cycles and meeting tight deadlines.

Education

Integrated Master's in Electronic Engineering with Music Systems Technology

September 2019–June 2023

University of York

This course has taught me and improved my knowledge in many areas, including electronics, software development, hardware implementation, embedded system design, networking, digital signal processing and data analysis.

A Levels - Computer Science, Mathematics and History

September 2017–June 2019

Moulsham High School

9 GCSEs including English and Mathematics

September 2012–June 2017

Moulsham High School

Work Experience

Software Engineer

August 2023–February 2024

Premium Lithium

I have worked across many disciplines in this role, developing full stack web applications, leading multiple projects in operations management and internal statistic tracking, and implementing AI applications for energy arbitrage and solar panel detection. It was a fast paced start up requiring me to manage my time effectively, meet ever changing requirements and deadlines, and work as part of an agile team.

Production Operator

October 2021–August 2023

DJ Assembly

I have worked in all areas of production and manufacturing of electronic goods, including circuit assembly, box build, and inspection, testing and validation. I also gained experience in managing outgoing and internal stock and logistics.

Customer Assistant

June 2018–August 2020

Matalan

I worked in all areas of the store, with responsibilities including serving customers at the tills, management and selection of stock on the shop floor, and inventory management in the warehouse.

Technical skills

Programming Languages Python, JavaScript (SvelteKit and React) Java/Maven, C, MATLAB, Swift, VHDL, ARM Assembly Language, \LaTeX and SQL

Technologies Git, VSCode, Linux, MacOS, , Keil μ Vision 5, PostgreSQL, AWS, Google Cloud Compute, Vercel

Software Engineering Object Oriented Programming, Agile Methodology, Algorithm Design, Digital Signal Processing, Technical Writing, Database Design and Management

Electronic Engineering Circuit Design and Analysis, Hardware and Software Integration, Embedded System Design and Development

Achievements

- Led a project to develop an AI driven energy arbitrage algorithm for use in homes to manage the purchasing and storing of generated energy.
- Delivered multiple customer facing web applications built in SvelteKit with a PostgreSQL database.
- Successfully managed and worked in a team to develop an interactive presentation system, complete with image, audio, video and text display and Python and JavaScript scripting capabilities, implemented in Java.
- Designed and developed elements of an operating system for an embedded ARM microcontroller, with a fixed priority scheduler, mutual exclusion, task waiting and a queue-based task communication system, implemented in C, with the ARM Assembly Language.
- Created a model of the human voice and a guitar through the use of physical modelling synthesis, implemented in MATLAB.

Interests

I have played guitar for over a decade, drums for four years, and have taken on the role of lead guitarist and audio engineer for my band, resulting in us releasing an album and playing multiple shows in York. I am also a keen and regular climber, both in climbing gyms and outdoors, and I enjoy cycling in and around York.