pete.j.matt@gmail.com
(+44) 7914 384 120
London, UK

PETE MATTHEWS

Personal Website
LinkedIn
GitHub

EXPERIENCE

Software Developer Trainee **Codecademy** **Mar 22 – Sep 22**

- Coding Bootcamp - Computer Science Career Path See Credential
- Modules: Object-Oriented Programming; Data Structures; Algorithms; Databases; Computer Architecture; Discrete Maths
- Other courses:
  Learn Python 3 See Credential Learn JavaScript See Credential Learn SQL See Credential

Mechanical Design Engineer **Derry Building Services Ltd** **Nov 2019 - Present**

- Co-managed projects for HMRC (£30.2m), JLR (£18.1m) and Aston Martin F1 (£16.0m) by designing multi-disciplinary sustainable heating, ventilation, air conditioning and domestic water systems from concept to construction status.
- Reduced project cost by £225k by interrogating system data and implementing a value engineering strategy.
- Project Manager of a cross-functional team on 3 projects including Ed City London (£4.0m).
- Won a £1.2m project bid by producing a contractor's proposal utilising previous project data.
- Wrote a script to populate 100,000+ data points with specific design parameters into Revit model elements.
- Manage stakeholders in weekly workshop meetings with the client, architects, structural engineers etc. to effectively communicate my work in an engaging and digestible manner.

Junior Mechanical Design Engineer **Novo Integration Ltd** **July 2017 – Aug 2018**

- Created 3D models of HVAC systems and conducted energy analysis to optimize building performance and reduce costs by 10%.
- Developed load calculations, piping layouts, ductwork designs, equipment selections, and construction documents for commercial projects.

TECHNICAL PROJECTS

- **FPL Moneyball (Current Project)** – Automated fantasy premier league selection using strategies derived from mathematical models. Python script requests data from the FPL API, which is sent to an AWS Database (RDS) where the data is queried using MySQL. Code is hosted in an EC2 instance and is triggered through AWS Lambda. GitHub
- **Search Algorithm Visualiser** – A web-based app that visualises how search algorithms operate. This project stemmed from learning algorithms myself and helped with my own education. (JavaScript, NodeJS, React, HTML/CSS). Live GitHub
- **Sudoku Solver** – Sudoku game where users can pencil in answers before committing to a number. Users can complete the board with the solver, which uses the backtracking algorithm to assess what's left of the board. Web-based app (Chrome is best) but is most optimal when installed locally to visualise algorithm in full operation. (Python, HTML/CSS). Live GitHub
- **Sorting Visualiser** – Web-based app that visualises how sorting algorithms operate. This project can be considered a sequel to the Search Algorithm Visualiser. The principle is similar but uses different animations to convey how each sorting algorithm which is especially helpful when slowed down. (JavaScript, NodeJS, React, HTML/CSS). Live GitHub

LANGUAGES AND TECHNOLOGIES

- Python; SQL; JavaScript; HTML; CSS; React; NodeJS; AWS (EC2/RDS/Lambda)
- Visual Studio; Git/GitHub; MySQL; XCode; Excel; Revit/Dynamo

EDUCATION

Sheffield Hallam University **BEng Mechanical Engineering** **2:1 (Upper Second-Class Honours)**

- iMechE Accreditation; Rowing Club Treasurer; Solar Car Challenge Winner