

Thomas Lapautre

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Educations & qualifications

University of Bath

MEng Civil and Architectural Engineering

UK
2016-20

- First-class honours
- Chair of the University of Bath Japanese Society

Open University

M820 Calculus of variations and advanced calculus

UK
Ongoing

- 30 credit postgraduate module part of the MSc Mathematics

Ecole Jeannine Manuel

French Scientific Baccalaureate with International option

Paris
2013-16

- 16,5/20 overall grade (Highest Honour) — 20/20 in Mathematics

Online courses

- **Data Science, Machine Learning** — *WorldQuant University*

Work Experience

AKT II

Design Engineer

London
July 2024 – Now

Structural engineer in the Parametric and applied research team (p.art) working on concept stages and competitions.

Price & Myers

Structural Engineer

London
September 2021 – June 2024

Project engineer working primarily on new builds and refurbishments in London. This includes:

- Stage 3 to 5 of a large D&B social housing development in Acton (60M construction cost). Carried out the bulk of the detailed design and coordinated with architects in design workshops and DTMs.
- Managed smaller projects autonomously (~5M construction), carrying out the conceptual design and attending client meetings by myself.
- Detailed analysis of steel, concrete, timber, masonry and stone structures
- On site experience delivering stage 5 basement extensions and residential projects.

I was heavily involved in the Computation Group and promoted the use of digital tools: I developed a tool used practice wide to generate reports on the carbon emissions of our projects.

Freelance

Technology consultant

London
2021 – 2023

Consultant for mid-size photography and printing companies (2-5M revenue) to digitise their workflow. I developed an app in Google Apps Script that allowed the company to instantly compare the availability of their photographers and schedule appointments accordingly. The data was then centralised on a CRM software to keep track of the projects in a pipeline and distribute information internally such as appointments details, etc.

PixFirst

Business Intelligence Analyst

Paris
September 2020 – July 2021

PixFirst is a SaaS start-up for photographers to sell their pictures online. I played a key role in growing our customer base, by developing the client onboarding process.

- Writing python scripts to compare the YoY sales of the company and of our individual accounts. I provided insight into how sales could be increased by 10% and presented my findings to the clients.
- Generating and analysing KPIs of the sales team and managing the CRM database. I developed the strategy around customer acquisition by analysing the success rate across different lead sources.

Projects

Batch cropping software

2021

Developed a GUI used by photographers to batch crop 100's of portraits in a click. The app detects the face in the portrait using an open-source deep neural network from OpenCV, and then automatically centres the picture.

- If you google "crop portraits with face detection" my github page comes out in the top results
- [My repository](#) is cloned about 5 times a week

Academic Research Project

University of Bath

Awarded 77%

2018-20

Research topic: *Optimising cores and outrigger systems under practical design constraints.*

- Came up with a workflow to topologically optimise core structures while designing for modularity. Code written on Grasshopper and in interaction with Ansys APDL for a non-linear FE analysis.
- Established a deep understanding of current structural optimisation developments and mathematical formulations for optimisation (convex optimisation, genetic algorithms).

See the full list of projects on [my website](#)

Skills

Software

- **Revit:** Technician level knowledge of Revit - I do my own drawings in Revit for most of my projects.
- **Oasys GSA:** FEA of geometrically complex shapes.
- **Tekla, Robot:** Detailed RC design

Programming

- **Python:** Data science (NumPy, pandas), ML (sci-kit) and web development frameworks (Rest API)
- **JavaScript:** Web programming, Three.js
- **C++:** [See my hackerrank](#)
- **Html & CSS:** Designed my website. Good knowledge of bootstrap modules.
- **Grasshopper:** Parametric modelling of structures. Experienced in FE model generation, meshing and physics engines (form finding).

Languages

- **French, English, Japanese** – Fluent
- **Spanish** – Basic Level