# JOSH POOLEY

## DATA SCIENTIST | DEVELOPER

I'm a data scientist, developer and prototyper based in the UK, currently working in the geospatial industry. I love learning about new technologies, being creative and getting stuck in to a new project!

- Winchester, UK
- github.com/JEPooley
- linkedin.com/in/josh-pooley
- codepen.io/jepooley
- jepooley.github.io/cv/

## QUALIFICATIONS

**PhD Optoelectronics** - Zepler Institute, University of Southampton

**Master of Physics (First Class)** - University of Southampton

## PROJECTS

### OSDATAHUB
Inventor and technical lead for the osdatahub Python package, which offers customers a simplified interface for querying Ordnance Survey's data.

### DATA HUB EXPLORER
Inventor and technical lead for the data hub explorer web app (written with Svelte). Offers customers a view of available open-source and premium data sets; no sign-up required!

### MOBTIMER.DEV
Inventor and developer of the "Mobsters vs Lobsters" themed collaboration tool, written with SvelteKit.

## EXPERIENCE

### DATA SCIENTIST
Jan 2020 – Present  **[Ordnance Survey]**

As a prototyping specialist within Ordnance Survey's Innovation Team, I have worked on over 30 projects in the last three years! These have included open-source Python and Node.js releases, full stack web development, COVID SIR modelling, natural language processing and computer vision, as well as extensive manipulation and analysis of geospatial data.

### POST-GRADUATE
Sep 2015 – Dec 2019  **[Uni. of Southampton]**

During my post-graduate research at the University of Southampton, I focused on the development of high-speed sensors for deployment in harsh environments. This role involved a combination of practical lab-based experimentation, computer modelling, and extensive research paper writing.

## TECHNICAL SKILLS

### PYTHON DEVELOPER

with a diverse skill set, including API development (**Flask**, **FastAPI**), data analysis and manipulation (**Numpy**, **Pandas**), object-oriented programming (**SOLID code**) and environment management (**Poetry**, **Conda**, **Docker**).

### FRONTEND DEVELOPER

with professional experience making prototype web apps and open-source Node packages. Familiar with contemporary tech stacks such as **SvelteKit**, **SCSS**, **Node.js**, **Jest** and **Typescript**.

### CLOUD DEVELOPER

experienced in using the Azure cloud platform to create microservices (**Function Apps**), set up databases (**Azure SQL**), manage software packages (**Azure Artifacts**), deploy applications (**Azure App Service**) and create build pipelines (**Azure Pipelines**).

## PUBLICATIONS

**Pooley, J., Price, E., Ferguson, J.W. and Ibsen, M.**, 2019. *Optimised chirped fibre Bragg gratings for detonation velocity measurements.* Sensors, 19(15), p.3333.

**Pooley, J., Price, E., Ferguson, J.W. and Ibsen, M.**, 2019. *Detonation velocity measurements using rare-earth doped fibres.* Sensors, 19(7), p.1697.

**Pooley, J., Price, E., Ferguson, J.W. and Ibsen, M.**, 2019. *Detonation velocity measurements with uniform fibre Bragg gratings.* Optics Express, 27(16), pp.23464-23475.

## SOFTWARE ENGINEER

familiar with modern best practices such as test-driven development (**TDD**), trunk-based development and version control (**Git**), particularly within an Azure DevOps framework.

## DATA SCIENTIST

skilled in using Python's comprehensive data analysis and modelling toolset, including **NetworkX**, **Sci-Kit Learn**, **SciPy** and **PyTorch**, as well as the **Azure ML Suite** and its Python SDK.

## GEOSPATIAL SPECIALIST

proficient in utilising industry-standard GIS tools (**QGIS**, **ArcGIS**), as well as Python's geospatial suite (**GeoPandas**, **Shapely**, **Rasterio**), to draw meaningful insights from vector and raster data.

## INTERESTS

### COOKING
Passionate home cook and keen advocate of pineapple on pizza.

### MUSIC
A very amateurish guitar player and drummer. Also enjoy playing around in Logic Pro.

### WALKING
Extremely fond of being outside in nature — this is something I try and do every day of the year!

🔒 **SECURITY CLEARENCE (SC LEVEL)**

## PROFESSIONAL SKILLS

### PRAGMATIC PROTOTYPER
skilled at rapidly transforming ideas into tangible solutions. Capable of combining creative thinking and problem-solving abilities, to deliver practical and efficient prototypes with a strong attention to detail.

### TECHNICAL LEADER
with a proven track record of guiding teams towards successful project outcomes, using strong decision-making and problem-solving abilities to address challenges and drive innovation.

### ENTHUSIASTIC LEARNER
always seeking new learning opportunities to expand my knowledge and skills, with an adaptable mindset and a quick grasp of new concepts.

### AGILE DEVELOPER
familiar with the Scrum framework, having served as both a developer and a Scrum Master within technical and multi-disciplinary teams.

### TEAM PLAYER & TRAINED MENTOR
who's worked with a high number of junior developers, graduates and secondees in a highly collaborative environment. Proactively organising pair and mob programming sessions to foster knowledge exchange and skill development amongst team members.