

# PIERRE MARSHALL

## EXPERIENCE

### Developer for Freifunk

Sponsored by Google Summer of Code.

- Wrote a Rust utility for transforming and loading a large archive of JSON files into a MongoDB database. I also set up a GitHub workflow to check and test the code.
- Wrote a GraphQL interface with Node.js to resolve calls to MongoDB and make community data publicly available.
- Data visualisation with d3.js.

May 2024-Present

### Database administrator for Leicester City Council

- Wrote SQL scripts for database reports running on Microsoft SQL Server.
- Wrote Python scripts to connect the ebs database API with the Google Workspace API. This included system administration of a server running Debian GNU/Linux.
- Managed Open Data releases using Swagger/OpenAPI. GDPR risk assessments.

Mar. 2022-Sept. 2023

## EDUCATION

### IMPA at Tsinghua University

Web scraping in Python and parsing HTML to extract information about political parties.

Sept. 2023-May 2024

### Postgraduate research at Leicester University

Research on rural gentrification, I also taught on an introduction to geography module.

March 2020-March 2022

### MSc Geography at Leicester University

Research design, methodology, and statistics. Trained to use SPSS statistical analysis software, and its open source counterpart, JASP.

Sept. 2018-March 2020

## CONTACT

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## ONLINE

<https://github.com/extua>

<https://www.extua.pw>

## SKILLS

### CODING

Rust Python JavaScript

### DATABASES

SQL MongoDB GraphQL

### MARKUP

Typst L<sup>A</sup>T<sub>E</sub>X HTML/CSS

### INFRASTRUCTURE

Server administration

AWS Cloudfront

GNU + Linux

GitHub Actions CI/CD

## CERTIFICATIONS

Azure Database  
Administrator  
Associate



AWS Developer  
Associate



GitHub  
Foundations



## PERSONAL PROJECTS

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### [nth](#)

Package for formatting ordinal numbers in Typst, a Rust-based typesetting system.

Sept. 2023. Released v1.0.1 in June 2024.

### [newposte-rs](#)

Small Rust tool for generating YAML front matter for use with the Jekyll site generator.

Nov. 2023.

### [Unicode feed symbol](#)

Proposal to encode the Universal Feed Symbol in Unicode 15.1.

10th Nov. 2022

### [leicester.bike](#)

Javascript web app which showed the nearest rental bike station in Leicester and number of bikes available. Hosted on AWS S3 + Cloudfront. *Now offline.*

July 2022-2023