

# Kalen Josifovski

Harpenden, United Kingdom

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in kalen-josifovski-4053b51b3 • 🌱 KalenJosifovski

*Medicinal chemist learning AI for drug discovery.*

## 🎓 Education

### University College London (UCL)

MSc Chemical Research, Merit.

London, UK

Sep. 2021 – Sep. 2022

### University of Nottingham (UoN)

BSc Medicinal and Biological Chemistry, First-Class Honours (1:1).

Nottingham, UK

Sep. 2017 – May. 2020

## 🏢 Experience

### S2DS Bootcamp (Deutsche Welle)

Data Scientist

Remote, UK

Mar. 2025 – Apr. 2025

- Participated in a five-week intensive data science bootcamp tailored for individuals with advanced scientific backgrounds.
- Developed a python codebase using Large Language Models (LLMs) for generating synthetic survey responses.
- Used statistical methods to evaluate LLM responses, assessing accuracy and biases.
- Leverage techniques such as optimized prompting, few-shot learning, and response filtering to refine model outputs.
- Collaborated in an Agile team, gaining experience in stakeholder communication and project management.

### Travel

Career Break

Asia

Jan. 2024 – Jan. 2025

- Completed Harvard's Python for Research course, strengthening skills in scientific computing and data analysis.
- Self-taught in cheminformatics, applying Python to molecular data analysis, QSAR modeling, and drug discovery.

### Charnwood Molecular

Associate Research Chemist

Loughborough, UK

Nov. 2022 – Dec. 2023

- Designed novel small molecule compounds for various therapeutic areas, achieving improved potency and selectivity.
- Used molecular modelling tools to identify structure-activity trends for lead compound identification.
- Optimised synthetic routes and employed analytical techniques, maximising yield and purity.
- Collaborated cross-functionally with biologists and pharmacologists, interpreting assay results for efficient optimisation.
- Presented research progress to clients in weekly project meetings.
- Implemented new SOPs as a microwave super-user, enhancing safety and equipment utilisation.
- Spearheaded synthesis strategy for the 11th RSC retro-synthesis competition.

### PRA world Ltd.

Research Technician

Melton Mowbray, UK

Sep. 2020 – May. 2021

- Developed processes for carbon black extraction and purification from end-of-life tyres, improving yield and purity.
- Functionalised carbon black nanoparticles, enhancing compatibility as additives in paints and plastics.
- Conducted formulation testing and particle size measurements to ensure optimal physical characteristics.
- Conducted extensive patent literature searches to ensure process novelty.

## 🔧 Skills, Certifications & Interests

### Technical Skills:

- Programming languages: Python, SQL, Git, zsh/bash scripting, jekyll (static websites).
- Programming libraries: NumPy, pandas, Pytorch, Scikit-learn, scipy, matplotlib, seaborn, RDKit, OpenMM, biopython, pymol, chembl-webresource-client, OpeneyeTK.
- Data science: Machine learning, deep learning, neural networks and data visualisation.
- Cheminformatics: Library searching, docking, database querying, physical property prediction.
- Advanced laboratory: Organic synthesis, purification techniques, analytical methods (HPLC-MS, 1D/2D NMR).
- Med-chem: Drug design pipelines and structure-activity relationship (SAR).
- Software: ChemDraw, Mestrenova, Masslynx, Topspin, Microsoft office suite.

### Certifications:

- Volkamer Lab: TeachOpenCADD (DOI:10.5281/zenodo.1486226).
- HarvardX: PH526x – Using Python for Research.

### Personal Skills and Interests:

- Excellent scientific communication skills with experience presenting research findings.
- Languages: English (Native), Macedonian (Fluent). Right to work in UK/EU/EEA. Full UK driving licence.
- Scuba diving (SSI advanced open water certified, 40+ dives). Boulder/climbing (grade V6-7/6c+). Muay Thai (5 years).