

# Panos Kolyvakis (PhD)

Analytics, Environmental Eng.,  
Materials Science, Analytical Science,  
Chemistry

## Personal Info

📍 London , NW8

☎ +44 75 996 518 97

✉ panoskolyvakis@gmail.com

🌐 <https://github.com/PanosKolyvakis>

## Skills

**Probability and statistics** 4+ yrs.

**Presentation, teaching** 4+ yrs.

**Python** 3+ yrs.

**SQL** 1+ yrs.

## Certifications

\* Databases and SQL for Data Science with Python

\*Mathematics for Machine Learning: Linear Algebra

\*Supervised Machine Learning: Regression and Classification

\*Probability and Statistics for ML and Data Science

## Projects

**Keyboard-SnippingTool-ToGPT** (PowerShell, .zsh, python, API , GUI )

**Recipe popularity prediction** (python, ipynb , analytics , XGB , classification)

Energy Demand Forecasting / Stock Price Prediction (time series , MA , AR , ARIMA , FbProphet , analytics)

Regression and statistical analysis in fitting experimental data (PhD) - physical adsorption isotherms models (Matlab , Origin , Excel , python, linear and non-linear regression)

## Biography

Former materials researcher and Teaching Associate in Environmental Engineering at the University of Edinburgh. Solid mathematical foundation, analytical expertise, and versatile skills across scientific and engineering domains. Skilled in concise and effective project reporting, ensuring clear communication of progress in complex initiatives. Dedicated learner and problem-solver with organizational and communication skills, poised to contribute effectively to challenging projects in collaborative environments.

Fluent Python programmer including all common machine learning, analytics and visualization libraries (Numpy, Pandas, Scipy, Sklearn, TensorFlow, Matplotlib etc) as well as the command line, git and SQL. Solid understanding of Data Structures and Algorithms. A comprehensive overview of my work and projects, please visit my [website](#).

## Work Experience

### Business Intelligence/ Data Analyst

Mar 2023 - Nov 2023

Xenos group Hotels, Zante, Greece

Utilised **Excel** and **applied data analytics** to room occupancy, pricing trends, and customer booking patterns, to optimise resource allocation. My brief tenure demonstrated a keen ability to swiftly analyze data, derive actionable insights, and drive tangible results in a dynamic hospitality environment.

### Environmental Eng. Teaching Associate

Sep 2021 - Oct 2022

School of Civil and Environmental Engineering,  
The University of Edinburgh

Lectured, designed course material and was responsible for the academic examination in two academic courses: **Environmental Engineering** and **Water Engineering**. Delivered classes in **Engineering Mathematics** and **Engineering Design** courses. Engaged in **scientific programming** in wave simulations using Python in the Firedrake and Thetis computation libraries.

Watch my lectures: [Engineering Mathematics](#), [Environmental Engineering](#).

## Education

### PhD - The University of Edinburgh

Jul 2017 - Jul 2021

School of Chemistry (Prof. Neil McKeown)

**Thesis title:** Design and synthesis of porous adsorbents for water purification.

**Teaching and Tutoring:** Online and in-person Workshops (physical chem. and chemical eng. students). Received two nominations: 'tutor of the year' award.

Applied **regression methods** and **data modelling** using **MATLAB®** and **Origin®** software. I applied **computational techniques** to fit **physical models** that describe the physisorption and chemisorption (including kinetics) of substances onto porous adsorbent materials. Investigated the effect of linearisation on the statistical error distributions in regression techniques. **Document Preparation:** Writing **Project Proposals** and **Patent Invention Disclosures**.

### BSc - The University of Edinburgh

Sep 2013 - Jul 2017

School of Chemistry (Prof. Michael Shaver)

### First-class honors (1st)

Achieved the highest average (GPA) in my year and received an award for **"Outstanding Academic Performance"**.

## References

**Prof. Neil McKeown** School of Chemistry, UoE e-mail: [neil.mckeown@ed.ac.uk](mailto:neil.mckeown@ed.ac.uk)

**Prof. Antonios Giannopoulos** School of Civil Eng. , UoE e-mail: [a.giannopoulos@ed.ac.uk](mailto:a.giannopoulos@ed.ac.uk)