

Arastun Mammadli

Exhibition Rd, South Kensington, London SW7 2AZ | arastun.mammadli24@imperial.ac.uk

+44(0)7354997309 | [linkedin.com/in/arastun-mammadli](https://www.linkedin.com/in/arastun-mammadli) | github.com/ArastunM

Profile

MSc Applied Computational Science and Engineering student at Imperial College London, specialising in applied AI, machine learning, and deep learning for real-world challenges. As part of the Earth Science and Engineering department, I work with extensive environmental data, and have access to one of the largest research groups in the university; Applied Modelling & Computation Group (AMGC).

Education

Imperial College London, MSc Applied Computational Science and Engineering Sept 2024 – Sept 2025

- On track for a Distinction - predicted grades: A, A*
- Modules include: Computational Mathematics, Deep Learning, Data Science & Machine Learning

University of Exeter, BSc Computer Science Sept 2020 – May 2024

- First-Class Honours, Dean's list for Year 1 (84%)

Dunya IB School, Azerbaijan, International Baccalaureate Diploma Sept 2018 – May 2020

- Grade: 40, Extended Essay on Computer Science (Genetic Algorithms)

Experience

Computational Data Science Project, Imperial College London, UK Winter 2025

- Developed DL (U-Net, Conv-LSTM) models for real-time lightning storm prediction.
- Processed and analyzed satellite imagery and time-series data.
- Built predictive models for VIL frame forecasting and lightning flash prediction.
- Strengthened expertise in deep learning, time-series analysis, and scientific computing.

Applying Computational Science Project, Imperial College London, UK Autumn 2024

- Developed an airburst impact simulation model with optimized parameters.
- Implemented a nonlinear solver using the bisection method for robust calculations.
- Designed a bounding box algorithm for efficient postcode and population impact analysis.
- Automated testing and CI/CD integration to ensure code reliability.
- Strengthened expertise in numerical methods, optimization, and scientific computing.

Software Developer Internship, EMBAWOOD LLC, Baku, Azerbaijan Summer 2023

- Developed and maintained Java-based applications using the Spring Framework.
- Debugged and optimized existing code to improve system performance.
- Collaborated with cross-functional teams to deliver software solutions on time.

Skills

Programming Languages: Python, C++, C, Java

Technologies: JetBrains IDEs, Visual Studio, Git, React, Django

Interests: Competitive Programming, Boxing

Languages: English, Azerbaijani, Russian, Turkish (Fluent); Spanish (Limited Working Proficiency)

References available on request