Patrycja Kalinowska

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Fluent in - English, Polish, Russian

EDUCATION

Imperial College London Sep. 2024 - Sep. 2025

Master of Science in Biomedical Engineering (Medical Physics)

Queen Mary University of London Sep. 2021 - May. 2024

Bachelor of Science with Honors in Computer Science, First Class

WORK EXPERIENCE

Google DeepMind Research Ready Programme

Jun. 2024 - Jul. 2024

Research Intern

- Conducted a research project on Audio-Visual Cues for Spatial Generalization.
- Utilised PyTorch, OpenCV, and Surroundpy to enhance spatial audio for group calls.
- Collaborated with PhD students from Queen Mary University of London.

St Gregory's Science College

Jun. 2023 - Jul. 2023

Teaching Intern

- Conducted a lesson with Year 12 students on Assembly language.
- Supported KS3 students with classroom activities.

Queen Mary University of London

Sep. 2022 - Dec. 2024

Computer Science Demonstrator

- Responsible for Computer Systems and Networks, Database Systems, Object-Oriented Programming, Microprocessors, and Operating Systems modules.
- Instructed and assisted students with questions related to their assignments.
- Uploaded attendance on Excel and communicated over Microsoft Teams.
- Marked student's presentations and assignments.

Student Ambassador Mar. 2023 - Aug. 2024

- Coordinated and executed successful events at the university level.
- Acted as a role model and motivator to engage guests, answered questions and shared experiences.

VOLUNTEERING

Buddy Scheme & PASS Scheme Mentor

Sep. 2022 - Feb. 2024

Mentored and provided weekly academic support to first-year students.

PROJECTS

LiDAR Amazon Rainforest Data Processing and Machine Learning

- Used lasR to extract data from over 100GB of 3D point cloud LiDAR data and convert it into a 2D CHM.
- Piped lasR data to lidR to segment and extract canopy data using a custom variable window size formula.
- Used multithreading, a SQL database, and Python data frames to compute and store all data.
- Investigated the effectiveness of Machine Learning with SciKit Learn for predicting forest density changes.

Image Processing Software

- Created a GUI image editing program in Java with 27 filters and arithmetic operations.
- Included histogram equalisation, Gaussian filter, Laplacian enhancement, thresholding, and Sobel masks.

SKILLS

Languages: C, C++, R, MATLAB, Java, Python, Javascript, 8051 Assembly, SQL, PHP, HTML, CSS, LaTeX **Tools:** Git, Linux, UML, ReactJS, Bootstrap, Vue3, Django, SkiKit Learn, PyTorch, OpenCV, pandas, lasR, lidR