

Maksymilian Matusiak

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Education

Queen Mary University of London, BSc Computer Science with Mathematics (Predicted: 1st Class) 2022 – 2025

- Key Modules: Algorithms and Data Structures, Software Engineering, Web Programming, Security Engineering, Distributed Systems, Neural Networks and Deep Learning

Woodhouse College, A Levels: Economics (A), Mathematics (B), Physics (B) 2020 – 2022

Work Experience

Goldman Sachs - Software Engineering Virtual April 2023

- Conducted a **security audit on password hashing algorithms** using Hashcat, identifying vulnerabilities.
- Delivered a **security enhancement report**, proposing stricter policies.
- *Reviewed code coverage* in high-risk modules, preventing potential exploits.

Hewlett Packard Enterprise - Software Engineering Virtual Aug 2023

- Built a **RESTful web service** in Java (Spring Boot) with role-based authentication.
- Achieved high test coverage with JUnit, minimizing deployment issues.
- *Containerized the application with Docker* for consistent environment setups.

Accenture North America - Dev & Advanced Engineering Virtual Sept 2023

- Created an **automated search feature** in Java (Spring Boot) and integrated **CI/CD** with Jenkins.
- Contributed to Agile project management (user stories, backlog prioritization).

Projects

GRU Stock Market Price Predictor Oct 2024 - Apr 2025

- Built an GRU model in Python for predicting US stock closing prices, using Yahoo Finance data.
- Leveraged TensorFlow, Pandas, Matplotlib; tuned hyperparameters for accuracy.
- Achieved **<5% MAPE** across multiple test windows, demonstrating consistent, high-accuracy forecasting.

CNN CIFAR-10 Image Classifier Mar 2025 – Apr 2025

- Engineered a CNN in PyTorch achieving **>90% test accuracy** on CIFAR-10 with a novel attention-based expert block architecture.
- Applied data augmentation (random crop, horizontal flip) and batch normalization, improving model generalization on **60,000 images**.
- Reduced GPU memory usage and training time by up to **40%** using `autocast()` and `GradScaler()` for efficient half-precision training.

FDM Expenses Application Jan 2024 - Apr 2024

- Built a business expense tracking app with secure login and multi-device support.
- Provided a visual dashboard for real-time expense summaries.

Skills

Programming Languages: Java, Python, JavaScript, R, SQL

Frameworks: Spring Boot, Swift, Django, React, Vue, TypeScript, TensorFlow, PyTorch

Cloud & Tools: GCP, AWS, Apache Spark, Jenkins, Hashcat, FIGMA, CI/CD, Jupyter Notebook, Anaconda

Soft Skills: Leadership, Research, Problem-Solving, Teamwork, Communication