

# LUCY NOWACKI

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## SUMMARY

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MSc student in mathematics with solid skills in Python scripting and numerical computing. A committed researcher with a keen interest in developing machine learning algorithms and solutions for Data Science purposes. I love exchanging ideas with peers as well as developing independent projects.

## RELEVANT COMMERCIAL EXPERIENCE

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### Internship

*July - August 2021*

Hewlett-Packard Wroclaw

- ✓ Modelling the optimal worker's time schedule in the call centre
- ✓ Application of binomial, Poisson, and exponential distributions in queuing theory
- ✓ Logistic and Exponential regressions to predict the number of reported faulted items
- ✓ Web-scraping
- ✓ Delivered reports and presentations

### Internship

*July - August 2018*

Bloomberg, London

- ✓ A look at large organisation's businesses and structure (Sales & Analytics, Global Data)
- ✓ Insight into the design of art-of-the-state numerical and machine learning algorithms and their development into infrastructure and end-user products
- ✓ Collaborated with colleagues in crafting and implementing a project to classify non-standardised documents for the MiFID II reporting system
- ✓ Delivered reports and presentations

### Coordinator

*October 2012 to April 2015*

Excel Stone, London

- ✓ Responsible for coordinating teams to deliver high profile projects within challenging deadlines
- ✓ Routinely given presentations to senior managers and stakeholders detailing the level of progress of projects and business development plans
- ✓ Built and maintained close relationships with clients and stakeholders to facilitate efficient delivery of projects within the required specifications
- ✓ Applied optimisation techniques to aid the decision-making of management during the resource allocation and project planning processes
- ✓

## EDUCATION

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### Queen Mary University

*September 2019 to June 2023*

### MSc in Mathematics

- ✓ Utilised advanced machine learning (ML) tools to discern patterns in large data sets, e.g., image classification employing residual neural networks

- ✓ Learnt PyTorch to find derivatives and solve PDEs by physic-informed neural networks (for example, Black-Scholes model for option pricing, KDV equation)

**University of Greenwich**

*September 2015 to September 2018*

**BSc in Mathematics**

- ✓ Acquired skills in deriving numerical schemes – from mathematical theory to practical development.
- ✓ Developed proficiency in Python with Object-Oriented Programming (OOP)

## **TECHNICAL SKILLS**

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- ✓ Cleaning and processing data sets, data compression by means of Pandas, and SQL
- ✓ Building algorithms from scratch and their implementation via Pytorch and SciPy
- ✓ Scikit-Learn for pipelines, estimation, validation, and tuning models
- ✓ Probability for an actuary. Time-series analysis (ARIMA, GARCH). Block-chains
- ✓ Expertise in regressions, SVM, Classification and Regression Trees, K-neighbours and other Machine Learning algorithms
- ✓ Numerical and symbolical computing in Mathematica (Method of Lines to solve PDE, spectral methods)
- ✓ Work on Linux using Bash and Git
- ✓ HTML, CSS at level to create and deploy own blogging platform, NIKOLA

**You are welcome to visit my PERSONAL BLOG (python, coding, mathematics)**

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<https://lucynowacki.github.io/>