

# NEVENA GLIGIĆ

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## EDUCATION

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### UNIVERSITY OF TEXAS AT AUSTIN

*PhD Statistics*

2022 - 2027

### UNIVERSITY COLLEGE LONDON

*MSC Computational Finance | First Class*

2020 - 2021

### THE UNIVERSITY OF MANCHESTER

*BSC (Hons.) Mathematics | Upper Second Class (2:1)*

2017 - 2020

## WORK EXPERIENCE

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### UNIVERSITY OF TEXAS AT AUSTIN, DEPARTMENT OF STATISTICS AND DATA SCIENCE

Austin, USA

#### *Graduate Research Assistant*

Summer 2023, 2024

- Summer 2023 supervisor and research area: Dr Mingyuan Zhou, probabilistic diffusion models and generative adversarial networks
- Summer 2024 supervisor: Dr Arya Farahi, weak signals in time series

### UNIVERSITY OF TEXAS AT AUSTIN, DEPARTMENT OF STATISTICS AND DATA SCIENCE

Austin, USA

#### *Teaching Assistant*

August 2022 – May 2024

- Supported statistical education of undergraduate students.
- Provided simple and clear explanation of complex statistical concepts.
- Responsible for assignment grading and leading office hours.

### BALLY'S INTERACTIVE

London, UK

#### *Campaign Executive (Digital Media)*

January 2022 - July 2022

- Analyzed campaigns performance data, spotted trends, and used the observations to implement changes and manage campaigns.
- Researched campaigns' performance on different days in a week.
- Studied players' value during their lifetime and for different age groups.

### UNIVERSITY COLLEGE LONDON, SANTANDER BANK UK

London, UK

#### *Summer Research Intern*

June 2021 - September 2021

- Project title: Operational Risk Bayes Neural Network
- Research question: what change in operational losses values caused a change in operational risk measures?
- Applied neural networks, naive Bayes classifier, and multinomial logistic regression. Used Python and R.
- Presented the research question, methodology, findings, and the research importance and applications at Santander University Engagement Program 2021.
- Part of a team of four.

## RELEVANT ACADEMIC PROJECTS

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- Paper replication: Bühlmann, Peter (2002) "Bootstraps for Time Series," *Statistical Science*, 17.1, pp. 52–72. Available at: <https://doi.org/10.1214/ss/1023798998>.
- Paper replication: Bauder, D. *et al.* (2020) "Bayesian mean–variance analysis: Optimal portfolio selection under parameter uncertainty," *Quantitative Finance*, 21(2), pp. 221–242. Available at: <https://doi.org/10.1080/14697688.2020.1748214>.
- *Networks and Systemic Risk (2021)* - studied stability of an interbank exposures system in MATLAB with respect to contagion due to counterparty risk and overlapping portfolios; performed two stress tests using Furfine algorithm.
- *Jump Diffusion Models with Finite and Infinite Activity (2021)* - studied and discussed research papers on the topic.

- *Algorithmic Trading (2021)* - developed three trading strategies and analyzed their performance using Python.
- *Loan Default Prediction (Machine Learning) (2021)* - built a model using supervised learning techniques which predicted whether a customer would default on their loan or not; used MATLAB.
- *LSE Investment (2021)* - invested 1,000,000.00 (fictitious) in a choice of ten stocks in a period between 14th December 2020 and 31st December 2020; reported 0.11% positive return compared to 1.32% loss performed by FTSE100 index; created a report explaining the chosen portfolio strategy and analyzing the performance.

## ACHIEVEMENTS AND AWARDS

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- *College of Natural Sciences Fellowship (2024, 2023, 2022).*
- *Peer Assisted Study Scheme Leader Certificate (2019)* - main idea: providing peer support to fellow students.
- Selected for *Manchester Gold Mentoring Program (2018)* - program goal: mentor supported career planning.
- Completed *Sustainability Challenge (2017)*, *Social Justice Challenge (2018)* and *Workplace Ethics Challenge (2019)*.
- Worked in a team to develop an imaginary university that would be sustainable, ecologically, and locally acceptable, within a set budget.
- Broadened understanding on social justice through discussions addressing higher education and trade.
- Developed understanding on workplace ethics.
- *The School of Mathematics Entrance Scholarship (2017).*
- *European Youth Parliament (2015).*

## ADDITIONAL SKILLS AND INTERESTS

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- IT skills: Python, MATLAB, R, R Studio, LaTeX, C, Microsoft Word, Microsoft Power Point, Microsoft Excel; some experience in using Adobe Photoshop, Dreamweaver, and Microsoft Access
- Languages: Croatian (native), English (fluent), German (pre-intermediate), Latin (beginner)
- Sports: volleyball (1st B Croatian Women National League, captain), tennis, running