



Dimitar Georgiev

PhD student in AI & ML

d.georgiev21@imperial.ac.uk

London, United Kingdom

dimgeorgievv.github.io

linkedin.com/in/dimitar-georgiev

I am a PhD student in Artificial Intelligence and Machine Learning within the AI4Health CDT at Imperial College London working on fundamental deep learning and its applications to cerebral organoid phenotyping and drug discovery. My background is in Mathematics, Computer Science and Physics and I have good research and work experience in AI and ML, Multi-Agent systems, Data Science and Software Engineering.

INTERESTS



Research



Artificial Intelligence



Data Science



Software

EDUCATION

PhD in Artificial Intelligence and Machine Learning

AI4Health CDT at Imperial College London

10/2021 - Present

- Supervised by and a part of the research groups of Prof. Mauricio Barahona and Prof. Molly Stevens
- Working with a multidisciplinary team of experts to advance tissue analysis and precision medicine
- Developing deep learning approaches for cerebral organoid phenotyping and drug discovery
- Working on topics in representation learning, deep generative modelling and machine learning for healthcare

MMath Mathematics

University of Southampton

09/2017 - 07/2021

First Class Honours

- Achieved an average of about 85% while also working and participating in numerous extra-curricular activities
- Specialised in Mathematics, Artificial Intelligence, Computer Science, Data Science and Theoretical Physics
- Worked on two extensive individual projects on black holes' orbital mechanics and quantum computation and algorithms
- Audited 7 additional modules and took part in multiple projects, competitions, seminars and societies

WORK EXPERIENCE

Research Assistant

University of Southampton

11/2019 - 10/2021

Agents, Interaction and Complexity research group

Southampton, UK

- Designed and implemented algorithms for decarbonisation and operation optimisation as a part of a collaboration between the Centre for Maritime Futures at UoS and Shell, as well as novel algorithms for swarm autonomy, communication and localisation as a part of a Turing project on Swarm Robotics and AI and Human-Swarm Interactions within the Centre for Machine Intelligence at UoS
- Developed a full-scale agent-based simulation engine for performing maritime experiments to understand and model the dynamics of maritime shipping and quantify the effectiveness of different maritime decarbonisation measures and their effect on operations
- Created a simulation engine to explore the effect of dynamic human-swarm teaming and its applications for disaster response
- Produced data visualisation dashboards, research figures and various front- and back-end software tools
- Participated in the process of writing up research papers and presenting our research results both internally and externally

Data Science Intern

GE Aviation

06/2019 - 09/2019

Southampton, UK

- Applied machine learning algorithms to create solutions for operations optimisation, anomaly detection and delay prediction
- Worked on various deep learning, statistical and optimisation models
- Performed extensive data analysis and visualisation of real-world aviation data
- Helped the team improve their processes when handling external projects
- Worked with people from the entire GE Aviation's data science team

WORK EXPERIENCE

Web Development Intern

Southampton University Students' Union

07/2018 - 08/2018

Southampton, UK

- I was responsible for modernising and optimising the main front- and back-end software applications of the Students' Union at the UoS
- Worked on the user experience, back-end functionality, payment security

Full-Stack Software Engineer

GameSoft

08/2016 - 09/2017

Sofia, Bulgaria

- Worked on end-to-end projects including web, database and desktop applications for both internal and external customers
- Developed a web application for managing and optimising agriculture processes
- Created a software system for smart parking lot management that performs licence plate recognition and data management and analysis
- Worked on an algorithmic bot that solves Slither Link puzzles online

OTHER EXPERIENCE

GTA for MATH97019 Methods for Data Science

Imperial College London

03/2022 - Present

- Graduate Teaching Assistant for the course Methods for Data Science offered to Y3 and Y4 students at Imperial College London
- Responsible for marking the coursework assignments of this coursework-only module

AWARDS

Data Science Competition Award (08/2019)

University of Southampton

- Won a data science and machine learning competition held across the School of Mathematical Sciences
- The prize included free admission to a two-day-long course on data analysis in R given by Hadley Wickam

Mathematics Year 1 Performance Prize (07/2018 - Present)

University of Southampton

- The award is given to the student with the highest year 1 average score across the School of Mathematical Sciences at the University of Southampton

4 x Dean's List Award (2018 - 2021)

University of Southampton

- The awards are made for exceptional performance as a student of the Faculty of Social, Human and Mathematical Sciences at the University of Southampton

CERTIFICATES

Fundamentals of Deep Learning for Multi-GPUs (12/2021)

Learned how to parallelise and scale big ML models. Course offered by NVIDIA.

Big Data Specialization (09/2018)

6 courses offered by UC San Diego on Coursera

Introduction to Quantum Computing (10/2020 - 05/2021)

A full-year course offered by IBM Quantum, Qiskit and The Coding School

Deep Learning Specialization (08/2018)

5 courses offered by DeepLearning.io on Coursera

Become a Data Visualization Specialist: Concepts (09/2019)

7 courses on LinkedIn Learning

Mathematics for Machine Learning Specialization (08/2018)

3 courses offered by Imperial College London on Coursera

SKILLS

Applied AI

Machine Learning

Research

Software Engineering

Data Analysis and Visualisation

Mathematics

Physics

Googling

Critical Thinking

Problem Solving

Time Management

Teamwork and Collaboration

Hardwork

Motivation

LANGUAGES

English

Full Professional Proficiency

Bulgarian

Native or Bilingual Proficiency

German

Elementary Proficiency