LUKA SKORIC

Physics PhD Student

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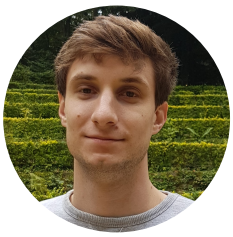

EDUCATION

PhD and MRes in Thin Film Magnetism group, Department of Physics, University of Cambridge

CDT in Nanoscience and Nanotechnology

2016–Present Cambridge, UK

- Investigating new effects in 3D magnetic nanostructures for applications in spintronics
- Leading author in Nano Letters publication where we developed an algorithm for 3D nano-printing with electron beams
- Designing and building a low-noise magneto-optical measurement system and Python software which controls the instruments, data acquisition and real-time data display
- Magnetic characterization of 3D structures using X-ray light source at synchrotron facilities
- Gave talks at MML 2019, SpinS-2019, and MMM 2020 conferences

BA and MSci in Mathematics and Physics

St John's College, University of Cambridge

2012–2016 Cambridge, UK

- Undergraduate in Applied Mathematics, MSci in Physics.
- Received first-Class Honours in all 4 years, became Scholar of the College
- Master's project on "Electrically contacting nanocrystals using a selectively etched nanogap" where I measured nanoparticle conductivity at cryogenic temperatures.

EXPERIENCE

Data Science Intern

DreamsAi

Apr 2019-Oct 2020

- Worked as an intern in Hong Kong March-June 2020. I helped set up machine learning infrastructure, worked on DNN-based voice verification system, OCR based captcha solver, and receipt scanning utility.
- Worked as a freelancer implementing neural networks for text and image processing, data classification and analysis.

Research Intern

Quantum Optimisation and Machine Learning (QuOpaL) Project

Jul–Sep 2015 University of Oxford, Oxford, UK

- Projects in quantum and classical machine learning and optimization.
- Programmed neural networks and implemented state of the art optimization method for the purpose of testing theoretical predictions

Software developer

HRpro d.o.o.

July–Aug 2014 Zagreb, Croatia

- Designed a method for optimizing the placement of workers to minimize travel expenses for Konzum, Croatia's biggest chain of supermarkets

TEACHING

- Supervised undergraduate Mathematics students in Quantum Mechanics, Electrodynamics, and Vector Calculus
- Demonstrator for MATLAB Scientific Computing course
- Mathematics and Physics tutor for "British Education Ltd" preparing students for British University entrance exams and interviews

SKILLS

Software:

- Used Python and MATLAB for data processing, machine control and simulations in research
- Machine learning projects for Dreamshub Ltd using Python with Keras and Pytorch, and for QuOpaL using MATLAB
- 2D and 3D design in AutoCAD and Inventor
- Programmed in Java, and C# for HRpro
- Maintained the Cambridge University Basketball Club's website
- Other: Git, Wolfram Mathematica, Docker, working with Linux remote servers

Mathematics and Science:

- Completed courses in calculus, linear algebra, probability, quantum mechanics and quantum computing; worked on computational projects in these topics
- During PhD worked on: 3D printing, optical systems, nanofabrication, spintronics, electron microscopy, X-ray characterisation, cryogenics
- Participated in the "International Physics Olympiad" (IPhO) and the "Middle European Mathematical Olympiad" (MEMO). Earned prizes in national Mathematics and Physics competitions.

- Languages: fluent Croatian and English, elementary German
- Accounting: Was the treasurer for the St Johns College graduate society and the Cambridge University Basketball Club

HOBBIES

- Basketball - played at a high level for over 12 years, captained the first Cambridge University Basketball team, and earned a "Blue" - title for accomplished athletes