# Jonathan Lupu

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# **Education**

MComp (Hons) Computer Science - University of Sheffield

September 2023 – Present (Predicted 2:1)

**Relevant Modules:** Data-Driven Computing, Systems Design and Security, Logic in Computer Science, Functional Programming, Software Hut, Java Programming, Data Structures and Algorithms, Introduction to Software Engineering

**A-Levels -** The Sixth Form College Farnborough

September 2021 – June 2023

Computer Science (A\*), Mathematics (A), Physics (A), Extended Project Qualification (A)

# **Technical Skills**

- Programming Languages: Java, Ruby, Python, SQL, JavaScript, HTML/CSS
- Frameworks & Libraries: Ruby on Rails, Spring Boot, Flask, Pandas, NumPy, SQLAlchemy
- Tools & Platforms: Git, GitHub, GitLab, VS Code, IntelliJ, PyCharm
- Databases: MySQL, PostgreSQL, SQLite

# **Projects**

# **Ruby on Rails Web Application**

- Created a 25-table relational database using Rails migrations for an audit automation system.
- Integrated backend controllers and frontend views, resulting in an increase in application functionality.
- Developed automated tests with 96% code coverage across a large-scale codebase.
- Collaborated in an agile team of 6, contributing to requirement gathering, user stories, and version control.

# **Python MNIST Image Classifier**

- Engineered a classification system using PCA and K-Nearest Neighbour to classify 3,000 handwritten digit images.
- Achieved 93.30% accuracy on noisy data and 80.60% on masked data.

### **Java Spring Boot Band Management Platform**

- Programmed a MySQL-backed web app for managing band members, performances, and inventory in a team of 6.
- Implemented RESTful APIs, MVC architecture, and core backend logic.

# 'Engineering: You're Hired' Project

- Designed an AI and IoT-based road safety system prioritising placement of emergency vehicles.
- Delivered presentations to academic and industry audiences.
- Attained distinction; strengthened communication and collaboration skills.

# 'Global Engineering Challenge'

- Designed a clean energy hub for a Cambodian village within a multidisciplinary team.
- Led a team of 5 members to complete project deliverables on schedule, achieving a completion rate of 100% within the designated timeframe.
- Awarded distinction; improved leadership and pitching skills.

# **Extracurricular Experience**

#### HackSheffield 9 Hackathon - 'Best Use of Git' Award

November 2024

- Learned to use Python Flask, and SQLAlchemy, whilst programming in an agile environment.
- Leveraged Git features (branches, issues, pull requests) to maintain collaborative efficiency.

#### IBM Python 101 for Data Science

October 2024

- Completed IBM's foundational course on Python for data science.
- Gained hands-on experience with Pandas and NumPy.
- Practiced real-world data manipulation and analysis.

#### **IBM MQ Developer Essentials Workshop**

March 2024

- Built inter-application messaging systems using Java.
- Improved understanding of software integration and debugging.

# **Work Experience**

#### Bar and Catering Assistant - Sheffield Students' Union

September 2024 - Present

- Performed ID checks at large events (1,000+ attendees).
- Served accurately measured drinks whilst maintaining fast pace and high standards
- Maintained service quality in high-pressure environments.

# Rink Steward - Ozone Ice Rink

July 2024 – September 2024

- Manged bookings and payments for smooth customer experience.
- Enforced safety protocols, contributing to a perfect safety record.
- Collaborated with staff, building strong teamwork skills.

# **Instore Team Member** – *Domino's Pizza*

February 2022 - September 2023

- Delivered excellent customer service at front of house.
- Adapted quickly to different stations, enhancing multitasking.
- Trained 3 new employees, improving team efficiency and streamlined onboarding process

# **Hobbies & Interests**

- University Ice Hockey Team: Built teamwork and rapid decision-making skills.
- Former RAF Air Cadet: Led group activities; developed leadership and discipline.
- National Citizen Service (NCS): Raised £1,600+ for charity through team initiatives.
- Bronze Duke of Edinburgh Award: Developed resilience through outdoor challenges.