

# Vignesh Mohanarajan

## EDUCATION

### University of Exeter

Bachelor of Science in Computer Science

First Class Degree: 78%

Awarded the Dean's Commendation – 2023.

September 2021 - June 2024

### Gems Modern Academy

International Baccalaureate – 38 points

September 2018 - June 2020

## TECHNICAL SKILLS

### Specializations

- ✓ Algorithms
- ✓ Data Science
- ✓ Data Visualization
- ✓ Backend
- ✓ Machine Learning
- ✓ Natural Language Processing

### Programming Languages and Tools

- ✓ Python (Fluent)
- ✓ C/C++ (Practiced)
- ✓ MongoDB (Practiced)
- ✓ SQL (Proficient)
- ✓ Java (Practiced)
- ✓ Django (Adept)

## PROFESSIONAL EXPERIENCE

**Hatless Studios** | Software firm offering bespoke solutions to a wide array of clients across Southwest England

**Backend Developer:** *Python, Nix, Grafana*

January 2023 – Present

- Engineered REST APIs using Django for various projects with a minimum test coverage of 75%.
- Worked well within teams of 4-6 developers across many projects to fulfill all deliverables in a timely manner.
- Identified and debugged urgent and critical issues company wide.
- Implemented payments processing for projects utilizing services such as Stripe.
- Developed a tool which utilizes natural language processing for classification and semantic matching.
- Boosted the efficiency of a project by migrating from a relational database to a graph database.
- Conducted interviews and established training programs for talent acquisition and onboarding.

**Product Owner:**

June 2023 – Present

- Co-ordinated a team of developers and designers to deliver a project aimed to assist companies in calculating carbon emissions of their projects.
- Communicated with a client possessing domain knowledge to effectively translate their product vision into reality.

**CoachBright Charitable Trust** | Social mobility charity supporting young people in their education.

**Head Tutor:**

February 2022 – December 2022

- Led a team of tutors to teach socially disadvantaged students in GCSE Mathematics and Science.

## CERTIFICATIONS AND ADDITIONAL SKILLS

**MongoDB University** – MongoDB for Python Developers.

**DataCamp** – Completed the Data Science with Python Career Track

**Diplôme d'études en langue Française (DELF)** - B2 Diploma for Proficiency in French.

**Languages:** English, French (Fluent), Tamil, and Malayalam (Native knowledge)

## ACADEMIC RESEARCH

**Reinforcement learning in Football** | Research intended on improving agent performance via the injection of domain-specific knowledge through reward-shaping in the Google Research Football environment.

**BSc Dissertation:** *Reinforcement Learning, Statistical Modelling, TensorFlow, Python*

September 2024 - June 2024

- Implemented multi-agent and single-agent reinforcement learning algorithms to assess the effect of a shaped reward function using advanced football statistics.
- Enabled the calculation and tracking of statistics of the teams using the state information output by the environment.
- Presented the study at the Exeter **PyData** conference.
- Awarded a final grade of 84%.