

# Vignesh Mohanarajan

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## EDUCATION

- University of Exeter** September 2021 - June 2024  
*Bachelor of Science in Computer Science*  
*First Class Degree: 78%*  
*Awarded the Dean's Commendation – 2023.*
- Gems Modern Academy** September 2018 - June 2020  
International Baccalaureate – 38 points

## 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 2023 - June 2024
- Implemented multi-agent and single-agent reinforcement learning algorithms to assess the effect of a shaped reward function using advanced football statistics.
  - Presented the study at the Exeter **PyData** conference.
  - Final Year Project Prize – Runner up, awarded to the student with the best individual project.

## PROFESSIONAL EXPERIENCE

- Hatless Studios** | Software firm offering bespoke solutions to a wide array of clients across Southwest England  
**Backend Developer** 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 via payment 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.

## TECHNICAL SKILLS

- |                        |                               |  |                    |
|------------------------|-------------------------------|--|--------------------|
| <b>Specializations</b> |                               | <b>Programming Languages and Tools</b> |                    |
| ✓ Algorithms           | ✓ Backend                     | ✓ Python (Fluent)                      | ✓ SQL (Proficient) |
| ✓ Data Science         | ✓ Machine Learning            | ✓ C/C++ (Practiced)                    | ✓ Java (Practiced) |
| ✓ Data Visualization   | ✓ Natural Language Processing | ✓ MongoDB (Practiced)                  | ✓ Django (Adept)   |

## 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)