Jack Martin Bunyan

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Having always been enthusiastic for technology, I have structured my education around the studies of mathematics and computer science; the two most intrinsic for work the work I enjoy in this area. I have always driven myself to learn more and feel that each challenge it brings motivates me to do better. Outside of this, I enjoy team sports but, in particular, I am a black belt and coach at my local Ju-Jitsu club which required commitment and dedication to achieve. I thrive collaborating within a team and revel in overcoming the difficulties that leadership presents.

Qualifications:

Bachelor's Degree (University of Bristol):

Currently studying for a degree in Mathematics and Computer Science (BSc). On track for a First-Class degree based on current unit results from my first and second year. At the moment, I am extremely interested in data science and machine learning modules as the concepts and practicalities of artificial intelligence fascinate me.

A Levels:

- Computer Science – A*
- Mathematics – A*
- Further Mathematics – A*
- Physics – A*

Other:

- BJJA Black Belt Shodan
- Level 1 BJJA Coaching Qualification
- Proficient in Python, JavaScript, Java, and experience in others.

GCSEs:

- Mathematics – 9 (A**)
- Computer Science – 9 (A**)
- Physics – 9 (A**)
- English Language – 9 (A**)
- Chemistry – 9 (A**)
- Biology – 9 (A**)
- Electronic Products – 7 (A)
- French – 7 (A)
- English Literature – 7 (A)

Projects:

- **Agent-based Model of Language Evolution** – using Python to develop an improvement on an existing iterative-learning model to better understand the emergence of language within a population of agents, employing neural networks and genetic algorithmic concepts to implement this, while decreasing the computational complexity required.
- **Multi-agent Maze Solving** – a Prolog program that allowed up to ten agents to solve randomly generated mazes, each with one start and end location, using an A* pathing algorithm and delegation of tasks between agents to increase efficiency and minimise time taken.
- **Business Simulation for MTa Learning** – full-stack development on a business simulation game created over six weeks, involving; designing the model financial market used, creating a REST API linking to a MongoDB database, web-based REACT app implementation using TypeScript.
- **Video Streaming Web App for the University of Bristol's work with The Grand Appeal** – part of a team that developed a video link between two interactive sculptures. Implemented using a Java Spring Boot backend with a REACT app frontend.
- **Route Finding Application for William de Ferrers School** – an implementation of bi-directional Dijkstra's algorithm in a Python application to provide a tool for inexperienced staff to search for direct routes between classes.

Experience:

- **Undergraduate Teaching Assistant for the University of Bristol as an IBM Cloud Specialist (October 2022 – May 2023)** – Role involved working on the Software Engineering Project unit, giving guidance to the student teams on cloud-based solutions, particularly using the IBM Cloud Kubernetes and Code Engine services and acting as an administrator on our unit's resource groups.
- **Internship with MTa Learning (July 2022 – September 2022)** – Worked in a small team to develop a business simulation game designed to encourage and improve team working and critical thinking skills of groups within schools or companies.
- **Work shadowing at data management company DTSQUARED (June 2019)** – Using Snowflake, a data warehouse software, and learning data governance principles and storage solutions.
- **IT Work for a Chartered Surveyor, Thomas Dempsey (March 2018 – October 2018)** – Use of Microsoft Office to take meeting minutes and manipulate data within spreadsheets to generate reports.
- **Coaching in a Martial Arts Class (September 2017 – Ongoing)** – Valuable team working skills and ability to lead a group.
- **Maths Tutoring for William de Ferrers School (October 2020 – March 2021)** – Teaching skills and encouraging participation in students.