Joseph Garner

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About Me

- Over 4 years professional experience in computer science with software development orientated responsibilities.
- Graduated Manchester Metropolitan University with 1st class degree in Computer Science.
- I am passionate about software development, having completed a plethora of interesting AI orientated projects and over 150 LeetCode data structures and algorithms questions.

Current Role

Technical Engineer • Aspects of Glass Limited • May 2021 – Present

My experience at this company include but are not limited to:
- Designing, developing and testing new software solutions for payroll, inventory management and pricing.
- Technical support both hardware and software related.
- Establishing and implementing new software.
- Aiding with general business operations.

Projects

Connect Four AI
- Developed 6 distinct AI algorithms for a Connect Four environment, including: Minimax, MCTS, Q-learning, Deep Q-Learning, Minimax with iterative deepening, MCTS-Decisive.
- Implemented a Round Robin Competition, Evolutionary tournament and Elo rating tracking to gather data on the model's performance.
- Graphically presented, the data to the user to facilitate the accurate and concise evaluation and comparison of the models.
- Implemented a game function for the user to select an opponent to compete against.

Pneumonia detection AI
- Implemented 7 unique AI models to evaluate x-ray scan data and predict the presence of Pneumonia, comparing their performance.
- Further developed a cognitive neural network to predict the presence of Pneumonia in raw x-ray scans.

Inventory management application
- This was a bespoke application I developed to meet the requests of my current employer which allowed them to easily and accurately tack their entire inventory.
- A fully interactive and animated UI was developed for this application.

Payroll completion application
- I developed another bespoke application to meet the requirements of my current employer which allowed them to conveniently complete weekly payment calculations and documentation.
- A full interactive and animated UI was developed for this application.

Pricing software
- I developed a sophisticated application which was able to price product requests for my current employer.
- This was complicated due to having to quantify many variables such as complexity, material cost and time to complete.
- A full interactive and animated UI was developed for this application.

Proficiencies

- Python
- Java
- C#
- Office suite
- C++
- Visual Basic
- Haskell
- Java Script
- HTML
- CSS
- Blender

Hobbies

- Chess
- Coding (LeetCode)
- Video games
- Literature
- Rugby
- Fitness

Contact

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Links

LeetCode – here
GitHub - here
LinkedIn – Here

Education

Manchester Metropolitan University • Computer Science BSc • September 2021 – May 2025

- o **1st class degree** with average grade of **85%,** with graduation pending in July.
- o Completed many modules, including: Software Development Process, AI, Algorithms and Data Structures, Rapid Application Development and many more.

University of Manchester • Economics and Finance BA • September 2020 – July 2021

- o Completed all modules with a **2:1** grade average scoring a **1st** in the mathematics module.

Carmel College • September 2018 – July 2020

- o A level Computer Science – **Grade A**.
- o A level English Literature and Language – **Grade A**.
- o A level Economics – **Grade A**.

De la Salle High School, St Helens • September 2013 – July 2018

- o Eight GCSE's with a **grade 6** in Mathematics, English Literature, English Language and Computer Science.

Leadership/Communication

- o Part of my university rugby team.
- o Have had main roles in numerous theatrical performances.
- o Lead academic team projects.
- o Communicating with stakeholders.
- o Deputy head boy and head of communications in my high school.

References

Both academic and professional references can be provided upon request.