John Verwey

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Profile

Mathematician and Freelance programmer with extensive experience in optimizing data processing algorithms and conducting code reviews for AI-driven projects. Proficient in Python, Java, C, and statistical analysis, with a focus on delivering performance improvements and collaborative problem-solving. Passionate about leveraging technology for predictive analytics, complex problem-solving, and continuous improvement.

Education

Oxford University *Master of Mathematics - (OFFER)* *Sept 2025 -*

Exeter Mathematics School *A levels - (Predicted)* *Sept 2023 – July 2025*

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

Frome Community College *GCSEs* *Sept 2020 – July 2023*

- **9** in Mathematics, Further Mathematics, Computer Science, Chemistry, Physics
- **8** in English Language, Biology, Geography, Design & Technology
- **7** in Spanish, Astronomy
- **6** in English Literature

Experience

Freelance Software Engineer *250+ hours* *Feb 2024 – Current*

- Developed custom software solutions using Python, Java, JavaScript, and C# to meet client needs.
- Critiqued and improved client code for better function, readability, and performance.
- Delivered performance improvements, resulting in faster execution times and smoother user experience.
- Collaborated with teams on AI-driven projects, implementing optimized algorithms for predictive analytics and data processing.

Projects

Convex Geometric Solids *Set by Exeter University*

- Investigated the mathematical history and properties of complex geometric solids.
- Collaborated with a team of 5 to develop a research presentation delivered to over 200 attendees.
- Demonstrated proficiency in LaTeX, mathematical proofs, and collaborative research.

Statistical Sports Predictions *Set by ATASS Sports*

- Collaborated with a team to design statistical models for predicting sports outcomes.
- Analyzed large data sets, developing predictive algorithms to improve prediction accuracy.
- Tools Used: R, Excel

Engine Modeling *Set by EMS*

- Researched and self-taught undergraduate thermodynamics related to engine modeling.
- Developed predictive models of engine output based on geometric data.
- Produced a **report**, poster, and presentation on my research and modeling attempts.

Proficiencies

Languages: Python, Java, JavaScript, C#, SQL, LaTeX, R

Technologies: .NET, Google BigQuery, PostgreSQL, Pandas, Numpy, SciPy, Visual Studio, Eclipse, Jupyter, Git