Roshan Gani Ganithi

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Summary

Aspiring Intern with substantial internship experience in Software Engineering and insight across various fields from computer aided manufacturing to financial solutions. Studying Computer Science at UCL and adept with multiple programming languages including Java, Python, and SQL. Proven track record in teaching programming, showcasing strong communication, team collaboration, and problem-solving abilities. Looking to leverage academic knowledge and practical experience to contribute effectively to software development projects.

EDUCATION

University College London **London, UK**
BSc Computer Science - 1:1 (First Class Honours) *June 2026*
Related Coursework - Systems Engineering, Software Engineering, Computer Architecture and Concurrency, Data Structures and Algorithms, Object Oriented Programming, Theory of Computation, Discrete Mathematics, Linear Algebra

Sutton Grammar School **London, UK**
*VI Form - A*A*A*A - Computer Science, Mathematics, Physics, Further Mathematics* *Graduated July 2023*

EXPERIENCE

CloudNC **London, UK**
Software Engineering Intern *April 2024 - April 2024*
- Learned methodologies and processes for developing and testing CAM software, ensuring reliability and performance, which improved understanding of quality assurance practices
- Gained insight into software development team dynamics and collaboration, enhancing my teamwork and communication skills
- Developed an understanding of designing and manufacturing products using Fusion360, which improved my technical skills in CAD software

Union Bank of Switzerland **London, UK**
Finance Intern *June 2022 - July 2022*
- Shadowed employees across various fields, gaining valuable industry knowledge and experience
- Developed an understanding of Quantitative Investment Solutions, Foreign Exchange, Global Markets, and Wealth Management, enhancing my financial acumen
- Learned to work both independently and collaboratively, improving my teamwork and self-management skills

Sutton Central Library **London, UK**
Volunteer Teacher
Feb 2022 - April 2022
- Taught a Python programming course at the local library over a 10-week period, empowering community members with coding skills and enhancing digital literacy
- Designed and delivered a course for beginners of all ages to learn Python
- Developed skills in presenting ideas, acting on criticism, and thinking proactively, leading to improved teaching effectiveness

Private Tutor *Jan 2021– Present*
- Developed strong communication and interpersonal skills through one-on-one interaction with students.
- Enhanced problem-solving abilities by adapting teaching methods to suit individual learning styles and needs.

PROJECTS

Current Project - Formula One Driver Identifier - Python, OpenCV, NumPy
- Made use of Pandas and Selenium to automate the fetching of hundreds of images online
- Leveraged wavelet transformations to extract facial features
- Utilised GridSearchCV to test multiple models to select the most accurate version
- Used machine learning tools to develop a model that would be able to classify new images using a known data set.

Student Grade Management Web Application - Java, Spring Boot, JPA, Git, Maven, JaCoco, JUnit
- Collaborated using Git in a team-based environment, managing version control, maintaining a clean development workflow.
- Implemented database normalisation to efficient data storage and retrieval, supporting scalable and reliable data management.
- Developed a REST API using Spring Boot, enabling CRUD operations to manage student records such as grades and modules.
- Leveraged Maven to handle dependencies, JaCoCo to monitor test coverage, and JUnit to handle unit testing

Gym Planner - Java, JDBC, SQL, Gale-Shapley Algorithm
- Demonstrated expertise in algorithm design and optimisation through implementation of the Gale-Shapley algorithm for matching preferences efficiently.
- Developed an understanding of graph theory and its applications in real-world scenarios, such as resource allocation and scheduling.
- Acquired experience in software design principles and modular development, ensuring the scalability and maintainability of the gym timetable builder.
- Developed skills in database management, encompassing tasks such as querying, updating and optimising database performance.

Tetris Autoplayer - Python, Pygame
- Mastered Python programming language, employing advanced concepts and libraries to develop a Tetris autoplayer with heuristic-based decision-making.
- Cultivated collaboration and teamwork skills by soliciting feedback and incorporating suggestions from peers to enhance the autoplayer's performance.

Algorithm Analysis - Python, MatPlotLib
- Implemented multiple convex hull algorithms (Jarvis March, Graham Scan, Chan) for the purpose of comparing their computational efficiency on various datasets
- Made use of data visualisation tools to graphically represent the convex hulls and benchmark results, enhancing the clarity of performance comparisons

SKILLS

Programming: Java, Python, Kotlin, SQL, Haskell, C++, C, C#, LaTeX
Tools: IntelliJ, Jupyter Notebooks, VSC, Git, Fusion360, Tableau, MatPlotLib, Selenium, Pandas
Certifications: IBM SkillsBuild - Getting Started with Data, Data Fundamentals, Artificial Intelligence Fundamentals