Daniel Coimbra Salomao

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EDUCATION

- **University of Utah** - B.S. in Computer Science (Aug 2021 - Dec 2024)
  Relevant Coursework: Software Development I & II, Mobile App Programming, Foundations of Data Analysis, Artificial Intelligence, Machine Learning, Deep Learning, Computer Vision

TECHNICAL SKILLS

- **Programming Languages:** Python, C++, Java, JavaScript, Kotlin, NoSQL
- **Frameworks/Tools:** React, Node.js, Flask, MongoDB, Docker, Git, AWS (EC2)

EXPERIENCE

Undergraduate Researcher, Kahlert School of Computing (May 2024 - Current)
- Developed advanced DP and ILP algorithms for robotic inspection, achieving significant path weight reductions and improved coverage, leading to a successful WAFR conference submission.
- Conducted data gathering, cleanup, and analysis for robotics inspection planning, optimizing research methodologies and background studies.

Software Developer Intern, Hexagon MI (May 2024 - Current)
- Addressed geometric problems and engineered algorithms for path planning, spatial analysis, and collision detection. Greatly improving motion generation quality and computation time.
- Collaborated in 3D model creation, CAD modifications, and coding tasks using Python, JavaScript, and C# for robotic systems. Integrated GPU parallel computation into robotic solvers.

Software QA Intern, UIT (Jul 2023 - Jan 2024)
- Successfully implemented over 8 automated test plans for the University of Utah applications and services. Using Java, SQL and JavaScript. Improving testing time and release process.
- Designed API automated testing for WSO2 and Load tested all University services pre class.

Research Assistant, David Eccles School of Business (Jan 2023 - May 2023)
- Contributed to the development of the Flex-E-Markets trading platform using Java and Python.
- Conducted research on stock market operations and robots in trading, coding over 10 applications and integrating AI traders to academic and research scenarios.

Engineering Consultant, Maua Junior Feb 2019 - Dec 2019)
- Led a comprehensive consulting project to design and implement a practical employee time-tracking system, overseeing all stages from initial research to final execution.
- Developed skills in entrepreneurship, teamwork, and leadership.

PROJECTS

- **Wrap**: Developed a web app integrating a React frontend, Node.js server, and Flask NLP models to generate legal document reports. Used MongoDB and deployed on AWS EC2.
- **Sketch Mobile App**: Built an android sketch app using RoomDB and MVVM architecture.
- **PacMan AI**: Implemented multi-agent search and Q-learning algorithms to solve the PacMan game.

LEADERSHIP & ORGANIZATIONS

- **Theory in Practice** – Collaborated with international institutions on graph theory and scientific computing research. Advanced in the development of efficient algorithms for real-world graph data.
- **ULEEF** – Contributed to software development and data analysis for economic and financial research. Helped develop a platform for controlled trading experiments and algorithm deployment.
- **Ambev Project Lead** – Head of planning and execution of the Ambev Project Contest, leading a team of 4 engineers, and winning 1st place for the best strategic solution and design.