

Aaron Squire

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EDUCATION

University of Richmond, Richmond, VA

May 2025

Bachelor of Science in Computer Science, Minors in Mathematics and Data Science

GPA: 3.69

Honors: Dean's List (6 Semesters), NCR Rugby All-American, Upsilon Pi Epsilon Honor Society

Coursework: Software Engineering, Software Systems and Development, Databases, Data Structures, Algorithms

PROFESSIONAL EXPERIENCE

Software Engineering Intern

August 2024-Present

Cobotiq

Richmond, VA

- Develop fleet-management software for a fleet of 10+ cleaning robots in a fast-paced Agile development environment through a school-sponsored project for a software engineering course
- Utilize experience with C++, CMake, UML, and Git to design, implement, test, and upgrade the management system through the full development cycle
- Manage a non-relational MongoDB database with over 50 types of data, implementing CRUD operations to ensure efficient NoSQL queries for the fleet manager
- Model the software design using UML diagrams before programming, saving 100+ hours in debugging later stages
- Serve as team Scrum Master, ensuring zero git-flow errors in the team's version control, and guiding effective collaboration between team members through positivity and enthusiasm

Machine Learning Researcher

January 2024-Present

University of Richmond

Richmond, VA

- Conduct research on a team of three to enhance machine reading comprehension by 10% via prompt-tuning of large language models in Python
- Pioneer the use of argument structure to optimize prompt-tuning strategies to improve accuracy of responses across three large language models
- Apply knowledge of the open-source large language models Llama, Mistral, and Vicuna to run experiments on three diverse datasets
- Interpret and format results using statistical analysis to compare against over 20 similar papers
- Author a research paper for publication to two major natural language processing/machine learning conferences

TECHNICAL SKILLS

Languages: Python, C++, Java, Javascript, HTML, CSS, SQL, R

Developer Tools: Git/Github, Jupyter Notebook, Unix, RegEx, React, Firebase, CMake, MongoDB, LaTeX, Slack

Libraries: Pandas, TensorFlow, PyTorch, SciKit-Learn, Transformers, BeautifulSoup

PROJECTS

Team Lead, Data Analytics Competition (1st Place)

December 2022-February 2023

CarMax

Richmond, VA

- Built an application to predict future purchases for thousands of CarMax customers by training a predictive neural network on car appraisal data
- Leveraged experience with Python, TensorFlow, Pandas, and SciKit-Learn to engineer seven state-of-the-art models
- Improved accuracy of future car predictions by up to 250% compared to basic pattern recognition
- Collaborated with a presentation coach to present findings to a live panel of 10+ CarMax executives
- Won first place while competing against 200+ teams from across the nation

LEADERSHIP AND EXTRACURRICULARS

Division III Rugby

January 2022-Present

University of Richmond Men's Rugby

Richmond, VA

- Promote emotional composure and good sportsmanship in high-tension games, elevating both team performance and club reputation, helping the club rank top 20 in the country three years in a row
- Act as primary liaison between coaching staff/captains and newer players, reducing cliques within the 30+ person team
- Meet with new players to coach and build strong fundamentals, resulting in twice as much field time