

# Aryan Kumawat

703-400-2664 | [kumawatar@vcu.edu](mailto:kumawatar@vcu.edu) | [kumawataryan.com](http://kumawataryan.com)

## Education

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### Virginia Commonwealth University

Bachelor of Science in Computer Science, Concentration in Software Engineering, GPA: 3.9

August 2022 – May 2026

Richmond, VA

## Experience

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### Software Engineering Intern

Cvent

June 2024 – August 2024

Tysons Corner, VA

- Engineered critical functionality for Meeting Request Forms using React and TypeScript, implementing complex validation logic across integrated systems.
- Architected search algorithms to traverse and validate question hierarchies, preventing system errors for 1000+ clients.
- Designed user-friendly confirmation dialogs, reducing unintended deletions of crucial form elements by ~25%.

### Technology Sector Investment Analyst

VCU Student Managed Investment Portfolio

February 2024 – present

Richmond, VA

- Implement extensive use of Bloomberg terminal and other financial instruments to conduct in-depth market research.
- Collaborate with analysts to manage portfolio holdings of \$400K in assets with 14% return rate on top of S&P benchmarks.
- Analyze stock earnings, conduct sector updates, and present stock reports on over 30 publicly traded companies.

### Software Engineering Intern

Federal Reserve System

May 2023 – August 2023

Richmond, VA

- Enhanced Microsoft Edge web driver for test automation, using Java and Spring Boot, enabling QA engineers to configure the browser, and developed 10+ reusable methods in Selenium for complex scenarios, reducing testing time by ~15%.
- Engineered over 10 automated test scripts and refactored legacy codebase, identifying and resolving 6 critical bugs, improving the overall testing framework and software quality.

### Lead Instructor

Fairfax Collegiate

June 2022 – July 2022

Fairfax, VA

- Developed and led engaging curriculum for Robotics and Web Development courses, teaching HTML, CSS, JavaScript, jQuery, and Git to middle school students.

### Machine Learning Research Intern

Dartmouth College

June 2021 – August 2021

Hanover, NH

- Built a comprehensive solution to streamline Mohs surgery, a skin cancer removal procedure.
- Created 3D point cloud and model viewing interface using Three.js, and image segmentation models with TensorFlow.
- Achieved up to ~30% time savings via improved communication and workflow.

### Software Engineering Intern

Gradder

June 2020 – August 2020

Fairfax, VA

- Developed REST APIs using Flask and MongoDB to support student and teacher functionalities.
- Implemented efficient search algorithms utilizing MongoDB indexing, reducing query response times by 75% and enhancing user experience.

## Projects

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### RamShare | PHP, SQL, HTML/CSS/Javascript

April 2024

- Devised full-stack web application that connects VCU students to arrange carpools for holiday travel to hometowns.

### Othello AI Bot | Python, Minimax, Alpha-beta pruning

June 2021

- Developed an AI bot for Othello, achieving a win rate of over 90%.
- Designed a heuristic evaluation function considering mobility, corner capture, piece count, and positional advantages.

### SeniorShield | Python, OpenCV, Raspberry Pi, Swift

May 2021

- Developed a mobile application to enhance safety for cognitively impaired senior citizens, integrating real-time monitoring and alert systems.
- Engineered facial recognition system using OpenCV on a Raspberry Pi camera to identify unknown visitors, increasing home safety and security.

## Technical Skills

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**Languages:** Java, Python, C, JavaScript, HTML, CSS, PHP, LC-3 Assembly, SQL

**Frameworks and Libraries:** React, Node.js, Jest, Flask, JUnit, Cucumber, Selenium, Maven, Scikit-learn, TensorFlow, NumPy

**Technologies:** Linux, Bash, Git, Jenkins, IOT, AWS (Lambda + S3), MySQL, Arduino, Raspberry Pi