Christopher Coco Jr.

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Education

University of Massachusetts Lowell

Sep 2022 - Dec 2025

B.S. in Computer Science, Minor in Mathematics

- **GPA**: 3.8
- Coursework: Data Structures and Algorithms, Object Oriented Programming (C++), Software Engineering, Cloud Computing, Computer Security, Analysis of Algorithms, Logic Design, Calculus, Probability and Statistics
- Activities: Super Smash Bros. Club President, Cloud Computing Club Vice President

Technologies

Programming & Scripting: Golang, Python, C++, C, JavaScript/TypeScript, SQL, Bash, YAML, JSON **Cloud Native & DevOps:** Kubernetes, Argo CD, Helm, Kustomize, Docker, Podman, bootc, AWS **Frameworks & Libraries:** React, Next.js, Tailwind CSS, SQLite, Pandas, Matplotlib, Pyserial **Development Tools & Practices:** Git, Jira, Agile/Scrum, GitOps Principles, Unit Testing, LaTex

Experience

Software Engineering Intern, Red Hat - Lowell, MA

May 2025 - Aug 2025

- Contributed to the OpenShift GitOps team, enhancing upstream open-source projects Argo CD and Argo CD Image Updater, continuous delivery tools for Kubernetes.
- Implemented webhook-based container image updates in Image Updater, reducing reliance on polling and lowering both application resource usage and container registry load.
- Designed and developed a new Argo CD CLI command to query live application resource data with filtering options, improving observability in CLI-only environments.
- Enhanced CI pipelines, release scripts, and documentation for Image Updater, improving maintainability and developer onboarding.
- Participated in testing and validation for GitOps Operator v1.17, ensuring release stability and quality.
- Collaborated with upstream community members and Red Hat engineers, presenting proposals in contributor meetings and iterating on designs from community feedback.

Undergraduate Research Assistant, Umass Lowell - Lowell, MA

Nov 2022 - May 2025

- Contributed to the development of an adaptive controller for an exoskeleton arm, that enhances device performance by 50%-80% across various movement tasks.
- Designing and implementing algorithms that use fuzzy logic to dynamically adjust control parameters improving the responsiveness and adaptability of the exoskeleton arm.
- Developed and optimized Python code for seamless interaction between the exoskeleton arm and the operating computer, ensuring precise and reliable operation and data streaming.

Projects

Trivia Cloud

github.com/cjcocokrisp/trivia-cloud

- Created a real-time Trivia Game with AWS interacts with the Open Trivia Database to pull questions from various categories. The entire application was designed to be serverless.
- Implemented a web socket API that handles managing game state and active connections built using AWS API Gateway and written in the Go programming language.
- Stored the game data and state along with active connections in AWS DynamoDB.
- Built the front-end of the application in React with Tailwind CSS and used an S3 bucket to serve the compiled app.
- Automated deployments through GitHub actions to push the latest version on every commit to the main branch.