

Ruiyu Zhang

853 W Main St, Charlottesville, VA 22903 | kwf8hq@virginia.edu | 801-719-4677 |

EDUCATION

• University of Virginia, College of Arts and Sciences

Charlottesville, VA

Bachelor of Arts in Computer Science

Expected May 2026

- GPA: 3.9

- Relevant Coursework: Advanced Software Development, Software Development Essentials, Data Structures and Algorithms I and II, Machine Learning, Cybersecurity, Computer Systems and Organization I and II, Discrete Mathematics I and II, Web Applications, Artificial Intelligence

EXPERIENCE

• Software Engineer Intern

June 2025 - August 2025

Appian

Mclean, Virginia

- Engineered Python scripts to collect GitLab CI/CD metrics and built a centralized Datadog dashboard, adopted by 30+ teams and 200+ engineers to track DORA metrics (deployment frequency, failure rate, MTTR).
- Configured a single CI job to compare failures between dev and master branches, cutting root cause detection time by 40% and saving developers 5+ minutes per pipeline failure.
- Optimized Java unit testing by merging 200+ tests, reducing CI runtime by 25% per run.
- Developed 15+ unit tests for Python scripts managing GitLab pipelines, improving coverage and reducing errors by 30%.
- Built a Python-based monitoring tool forwarding Argo CD data to Datadog, enabling real-time alerts and reducing outage response time from 15 minutes to under 5 minutes.

• Software Engineer Intern

June 2024 - April 2025

USDA (Department of Agriculture)

Missoula, Montana

- Designed and launched USDA's first web application for visualizing wind speed vectors using MongoDB, React.js, Node.js, saving 10+ hours/week for 200+ firefighters nationwide.
- Implemented automated logging and ZIP packaging in USDA's C++/Qt software, improving usability for 200+ users and reducing manual errors by 20%.
- Integrated high-resolution (HRRR) weather data with C++, AWS S3, GCP, increasing wind model flexibility by 10% and enabling historical + forecasted simulations.
- Developed and deployed an analytics dashboard with PHP/JavaScript on Apache2, monitoring lab systems and guiding resource allocation.

PROJECTS

• Course Reviews — JavaFX, SQLite, FXML

Charlottesville, VA

- Led a team of four to build a desktop app for UVA students to create, search, and rate courses; implemented rating, filtering, and search features and conducted testing with 30+ peers, informing UI/UX refinements.
- Designed a lightweight SQLite schema and integrated it with JavaFX components to support real-time filtering and queries across 100+ course entries.

• Housing Whistleblowers — Django, Heroku, PostgreSQL, AWS S3

Charlottesville, VA

- Architected a whistleblowing platform enabling students to report dorm issues securely, with administrator dashboards for real-time updates and role-based responses.
- Conducted Agile sprints and user testing with 20+ students, incorporating feedback into iteration cycles; improved report submission time by 30% through streamlined forms.
- Integrated AWS S3 for storing uploaded evidence (images, documents) and deployed on Heroku with a PostgreSQL backend.

TECHNICAL SKILLS

• Languages: Python, C++, Java, JavaScript, PHP, C

Frameworks: React.js, Node.js, Django, React Native, Qt

Tools/Platforms: Apache Spark, Scala, Git, Docker, Linux, CMake, MongoDB, PostgreSQL, Datadog, AWS, GCP, Kubernetes, Apache Spark, Scal