Kingston Banks

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SUMMARY

Computer science student with two years of supervised research, secure systems laboratory work, and software projects focused on dependable engineering. Developed C, C++, Rust, and Python components for simulated secure data transfer, then connected requirements, UML and SysML models, implementation tasks, automated tests, and evidence. Used Git, Jira, containers, virtualization, **CI/CD**, and introductory DevSecOps practices across multidisciplinary student teams. Built embedded exercises, explored microservices and orchestration, and integrated prototype software with laboratory hardware interfaces. Active **U.S. government SECRET clearance** and **U.S. citizenship** support secure aerospace and defense work. Enrollment continues through Summer 2027. Ready to contribute careful analysis, clear technical communication, and practical software integration that helps **secure cross domain systems** reach reliable test environments.

EDUCATION

Bachelor's Degree in Computer Science 2027

Iowa State University GPA: 4.0 *Ames, IA*

Coursework: *Software Engineering, Embedded Systems, Cybersecurity, Requirements Engineering*

TECHNICAL SKILLS

- **Programming Languages:** C, C++, Rust, Python
- **Version Management:** Git, Subversion, Jira
- **Systems Modeling:** UML, SysML, data flow diagrams
- **Embedded Development:** Embedded C, embedded C++, Rust
- **Testing Tools:** Python automated testing, unit testing, failure testing
- **Virtualization:** Virtual machines, isolated environments, virtual test systems
- **Containers:** Containers, container images, isolated services
- **Software Architecture:** Microservices, service boundaries, software integration
- **Orchestration:** Container orchestration, deployment workflows, service coordination
- **DevSecOps Delivery:** DevSecOps, CI/CD, static checks
- **GUI Frameworks:** JavaFX, Java Swing, Java GUI development
- **Requirements Engineering:** Requirements analysis, requirements decomposition, traceability
- **Security Engineering:** Cross domain systems, security levels, memory safe applications
- **Integration Standards:** Customer requirements, certification standards, test environments
- **Clearance and Defense:** U.S. government SECRET clearance, aerospace computing, defense computing

SKILLS

- Requirements analysis
- Requirements decomposition
- Embedded software
- C
- C++
- Rust
- Python testing
- Git
- Jira
- UML
- SysML
- Virtualization
- Containers
- DevSecOps
- CI/CD

EXPERIENCE

Secure Software Engineering Research Assistant January 2026 - September 2026

University Research Lab *Ames, IA*

Supported a six person research team developing a secure data transfer prototype across simulated security domains. Owned software components, traceable requirements, automated testing, isolated deployment, and hardware interface integration under faculty supervision.

- Built C++ and **Rust** components for secure data transfer across simulated security domains.
- Mapped system objectives into traceable requirements, **UML** models, and **SysML** diagrams.
- Managed **Git** branches, **Jira** defects, code reviews, and sprint tasks for six researchers.
- Created Python automated tests for interface behavior and failure cases during lab demonstrations.
- Containerized services for isolated testing and documented deployment steps, assumptions, and CI checks.
- Integrated prototype software with **hardware interfaces**, then documented data flow corrections.

Embedded and Memory Safe Software Project Developer September 2024 - December 2025

Student Lab *Ames, IA*

Completed supervised **embedded software** work spanning C, C++, Rust, **virtualization**, JavaFX, microservices, containers, and CI/CD. Presented design decisions, test results, and security assumptions within a structured student engineering workflow.

- Compared **C**, **C++**, and Rust implementations across embedded exercises involving constrained resources.
- Configured virtual machines for isolated software testing and repeatable environment setup.
- Connected a **JavaFX** interface with simulated secure processing functions for test status review.
- Explored microservice boundaries, **containers**, and orchestration through a course deployment exercise.
- Added static checks and automated tests within a controlled student CI/CD workflow.
- Presented diagrams, test results, and security assumptions to multidisciplinary student reviewers.

PROJECTS

Secure Cross Domain Data Prototype 2026

Built a supervised prototype for controlled data movement across simulated security levels. Combined C++, Rust, requirements traceability, UML and SysML diagrams, Python tests, containers, and hardware interface checks.

Memory Safe Embedded Test Bench 2025

Compared embedded C, C++, and Rust implementations inside virtual machines. Documented resource behavior, test setup, JavaFX status views, and practical memory safety observations.

LEADERSHIP & AWARDS

- Dean's List, Iowa State University, 2025 and 2026
- Undergraduate Research Poster Recognition, 2026
- Cyber Defense Student Group, Lab Coordinator, 2026

CERTIFICATIONS

- Active U.S. Government SECRET Clearance 2026
- Coursera Rust Fundamentals 2026
- Microsoft Learn Introduction to DevOps 2025

PROFESSIONAL AFFILIATIONS

- Cyber Defense Student Group, Lab Coordinator, 2026
- Computer Science Peer Mentor, 2025 to 2026

LANGUAGES

- English (Native)
- Spanish (Beginner)

ADDITIONAL INFORMATION

Work Status : Authorized to work in United States. No sponsorship required.

REFERENCES

AVAILABLE ON REQUEST