

Emmalie Cole

Full-Stack Software Engineer | System Analyst

Contact

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GitHub: www.github.com/i-ekoul

Portfolio: www.i-ekoul.github.io

Professional Summary

Software engineer with a strong foundation in secure software design, system analysis, and technical writing. Experienced in software security assessments, system architecture, and full-stack development with a focus on efficiency, scalability, and risk mitigation. Adept at analyzing business and technical requirements, designing robust solutions, and producing clear, structured documentation. Passionate about AI, automation, and optimizing software systems for performance and security. Proven ability to collaborate across teams, lead projects, and drive innovation in complex technical environments.

Technical Skills

- **Programming Languages:** Python, Java, C++, SQL, HTML/CSS, JavaScript, Wolfram
 - **Software Development:** Object-Oriented Programming (OOP), Agile (Scrum), Test-Driven Development (TDD), Debugging, Algorithms
 - **Frameworks & Tools:** Vue.js, React.js, Node.js, Flask, Docker, Jenkins, Git, Kubernetes
 - **Databases:** MySQL, NoSQL, MongoDB, SQLite, PostgreSQL
 - **AI & Data Analysis:** ChatGPT, Watsonx, Gemini, Pandas, NumPy, SciPy, Matplotlib, Seaborn
 - **System Analysis & Security:** Threat modeling, risk assessment, secure authentication, SHA-256 hashing
 - **Visualization & Documentation:** Wolfram Alpha, Mathematica, Typora, Tableau, Mermaid.js
 - **IDEs:** Visual Studio, Eclipse, PyCharm, IntelliJ IDEA
 - **Operating Systems:** Windows, Linux (Ubuntu, Mint), Bash, Networking
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Projects

Personal Portfolio Website (Ongoing)

GitHub Repository: www.github.com/i-ekoul/i-ekoul.github.io

Live Website: www.i-ekoul.github.io

- Developed a fully responsive personal portfolio website using HTML, CSS, and JavaScript.
- Showcases projects, skills, and professional experience in an interactive format.

- Utilized GitHub Pages for hosting and version control via Git.

Artemis Financial Security Assessment (CS-305 Software Security)

GitHub Repository: www.github.com/i-ekoul/CS-305_Artemis-Financial

- Conducted a comprehensive security assessment of Artemis Financial's web application.
- Identified security vulnerabilities and implemented best-practice security enhancements.
- Applied SHA-256 hashing to secure sensitive data and improve authentication security.
- Delivered a detailed security report with risk assessments and mitigation strategies.

DriverPass System Analysis & Design (CS-255 System Analysis & Design)

GitHub Repository: www.github.com/i-ekoul/System-Analysis-and-Design

- Analyzed and documented system requirements for the DriverPass online driver training service.
- Designed comprehensive system architecture, including data flow diagrams, system components, and UI design.
- Collaborated with stakeholders to define business requirements and improve system functionality.

Professional Experience

Software Engineering Virtual Experience Program Participant

Electronic Arts | 2024

- Proposed a new feature for *The Sims 4* and authored a comprehensive feature proposal.
- Designed a class diagram and implemented C++ header files to define game object behaviors.
- Patched a bug fix and optimized the *Sims 4* codebase by implementing an improved data structure.

Member

The National Society of Leadership and Success (NSLS) | 2024 – Present

- Selected by campus administration to participate among top students in a leadership program.
- Completed Leadership Training Day, focusing on introspective and interactive training sessions.
- Participated in seminars led by celebrities and best-selling authors on topics such as leadership, time management, and goal setting.
- Engaged in peer-based leadership development teams, gaining experience in setting and achieving goals, receiving coaching, coaching others, and holding others accountable to commitments.

Writer and Editor

Freelance | 2022 – Present

- Edited and refined written content to ensure clarity, coherence, and stylistic excellence, maintaining high editorial standards across various subjects.
- Specialized in content editing and producing precise translations involving English and Russian, covering complex topics such as laser optics, medical/legal jargon, and stock market exchanges.
- Developed high-quality written materials for a diverse client base, including technical documentation and creative narratives, demonstrating exceptional versatility and attention to detail.

Senator for McConnell Residential Hall

University of Idaho | 2017 – 2018

- Elected by peers to represent them as their Senator.
- Acted as a liaison between residents and university administration, voicing student concerns and suggestions.
- Promoted and supported initiatives to improve the residential experience, focusing on sustainability, student engagement, and policy development.
- Organized and coordinated social, educational, and community-building events for hall residents.

Education

Bachelor of Science in Computer Science & Software Engineering

Southern New Hampshire University | Expected 2026

Associate of Arts in Liberal Arts

Southern New Hampshire University | 2023

Russian Language Studies

Diplomatic Academy of the Ministry of Foreign Affairs of the Russian Federation | 2024 – 2025

Certifications

- **Foundations of Leadership** – *National Society of Leadership and Success (NSLS)* | 2024
 - **Introduction to Computer Science & Programming Using Python** – *Massachusetts Institute of Technology* | 2023
 - **TESOL Certificate (Teaching English to Speakers of Other Languages)** – *Coventry House International* | 2022
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Languages

- **English:** Native
 - **Russian:** A2 Intermediate
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Additional Skills

- Leadership
- Communication
- Mentorship
- Proposal Writing
- Songwriting