

Eric Knocklein

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Experience

SitScape | Virginia

Software Engineer | 04/2024 - Present

As a full-time employee, maneuvered into vital positions on two client-facing projects.

- Leveraged **LangChain** to build a multi-threaded context-aware **SQL** generator and a Web LLM using **Perplexity**.
- Slashed runtime inefficiencies throughout the codebase by as much as **75%** and created performance tutorials and presentations for other developers.
- Won first place in **45%** of weekly feature demonstration competitions out of a pool of 36 contestants.

SitScape | Virginia

Software Engineer | 08/2023 - 09/2023

Took on a two month contract between two periods of travel.

- Focused on rapid development in an **agile** environment, shipping new features in only 2 days.
- Diagnosed a months-old faulty merge that went overlooked and restored over 200 lost lines of code.
- Spearheaded security research that culminated in another **24 page** report.

SitScape | Virginia

Software Engineer Intern | 05/2022 - 04/2023

- Outpaced the planned internship schedule in two weeks, transitioning from bug hunting to developing.
- Identified crucial contrasts against competitors in a two week product management role.
- Reduced lag time from input to display by **90%** when updating widget styling and proposed brand new architecture that would improve loading times by at least **50%**.
- Took initiative to become a core part of the cybersecurity team, performing penetration testing and threat modeling and writing a **24 page** report.

Education

University of Virginia | Charlottesville, VA

Computer Science | 08/2020 - 05/2023

- Graduated in 3 years with Highest Honors and a **3.975** GPA.
- Bachelor of Science in Computer Science and Minor in Applied Mathematics.

Projects

Portfolio Website | 12/2023 | [ericknock.dev](#)

- Created a **React** application in two weeks to display career, projects, and accomplishments that allows easy extension to display other portfolios in under ten minutes.
- Detailed 6 projects not listed here and expands on the four projects featured here.

Custom Map Viewer | 02/2023 - 11/2023 | [evyng.netlify.app](#)

- Developed a tool that allows users to place and resize maps on a canvas, and set up transitions between maps when zooming; demonstrated the software by showcasing over 20 hand-drawn maps.
- Implemented purely front-end **JavaScript** with the browser storage simulating a back-end functionality.

Wiki Graph Analysis | 09/2022 - 09/2023 | [www.youtube.com/@ericknocklein](#)

- Parsed a collection of interconnected articles into a graph of 600+ nodes using **Python** to create an optimal reading order for these articles; streamlined the writing process by clarifying relationships between articles.
- Animated two professional videos to communicate these ideas and other concepts of Computer Science.

Full Product Prototype Development: Card Game | 07/2021 | [ericknock.dev/projects/eins](#)

- Engineered a Java-based automation solution for the seamless generation of a complex card game consisting of 192 distinct cards; eliminated manual card creation.

Skills

Programming Languages: JavaScript, Python, C/C++, PHP, Java, R

Software/Frameworks: Git, React, jQuery, Django, AWS S3, LangChain, Docker

Other: Threat Modeling, Penetration Testing, MVC Architecture, Full Stack Development, Teamwork, Communication

Languages

English, German, Afrikaans