Aria Killebrew Bruehl

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EDUCATION

BA in Computer Science, minor in French GPA 3.83   Reed College | 08.19 - 05.23

Relevant Coursework: Computability and Complexity, Computer Graphics, Cryptography, Data Structures and Algorithms, Discrete Mathematics, Linear Algebra, Networks, Operating Systems

Technical Skills: C/C++, Git, Go, GraphQL, Java/Java Script, Python, REST APIs, Rust

RESEARCH & TECHNICAL WORK EXPERIENCE

Senior Thesis, A Parameterized Approach for Hedcut Rendering   Reed College | 08.22 - 05.23
- Surveyed techniques for non-photorealistic rendering of faces as stipple drawings
- Streamlined previous research by combining three existing approaches and fully parameterized process by designing and programming CLI using C++ and OpenCV
- Sped up several steps in the process by selecting more efficient algorithms and improved results with CLI that allowed each step to be tuned to each specific input

Software Engineering Intern   Sysdig | 05.22 - 08.22
- Designed and programmed GraphQL API in Go which halved frontend API calls by combining JSON data from Elasticsearch store using gRPC endpoints and REST APIs
- Restructured storage of API data with ArangoDB to clarify relationships between data
- Collaborated with senior engineers to deploy services using Docker, Kubernetes, AWS, and Jenkins for continuous integration

WAVES Software Development Workshop Trainee   Michigan State University | 05.21 - 08.21
- Engineered unit testing for MABE2 software using C++ and the Catch2 framework
- Composed documentation using reStructured Text, published on *Read the Docs*

altREU Research Assistant   Portland State University | 06.20 - 08.20
- Engineered a computational model of COVID-19 spread using Python MESA library
- Published results in PDX Scholar https://archives.pdx.edu/ds/psu/33611

TEACHING & LEADERSHIP EXPERIENCE

Tutor for CS Fundamentals I & II and Computer Systems   Reed College | 01.21 - 05.23
- Explained topics in labs, promptly evaluated work, and provided insightful feedback
- Facilitated drop-in tutoring to answer problem set and general course questions

Computer Science Students At Reed (CSTAR) Leader   Reed College | 08.21 - 05.23
- Executed community engagement events for CS department to promote connection

CS Mentor Student Coordinator   Reed College | 09.21 - 05.22
- Paired freshmen with upperclassmen mentors to initiate connections and support systems
- Advised and motivated several freshmen with advice for navigating Reed CS

HONORS & AWARDS

Phi Beta Kappa Honor Society   2023

Reed College Commendation for Excellence for Academic Performance   2020, 2022, 2023