

Nicholas Jennings

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----- EDUCATION -----

University of California, Berkeley

B.A. Computer Science, Applied Mathematics

2019 - 2023 (GPA: 3.97)

M.S. Electrical Engineering & Computer Science

2023 - 2024 (GPA: 4.0)

Notable Classes: Human Computer Interaction, Data Structures, Computer Architecture, Probability, Numerical Analysis, Algorithms, Artificial Intelligence, Cryptography, Real/Complex Analysis, Computer Graphics.

----- RELEVANT EXPERIENCE -----

Amazon (AWS)

Seattle, WA

SWE Intern

May - Aug 2023

- Designed and implemented a gamification extension to an internal iOS application, with a native AWS REST service as a backend.

SWE Intern

May - Aug 2022

- Designed and implemented a service which used AWS services to send scheduled notifications to specified subsets of mobile app customers.
- Designed the service for easy integration with future tools, and documented how these extensions should be implemented.

University of California, Berkeley

Berkeley, California

Undergraduate Research Assistant, Mentors: James Smith, Prof. Bjoern Hartmann

Sep 2021- May 2023

- Jennings, N., Nandy, A., Zhu, X., Wang, Y., Sui, F., Smith, J., & Hartmann, B. (2022). GeneratiVR: Spatial interactions in virtual reality to explore generative design spaces. CHI Conference on Human Factors in Computing Systems Extended Abstracts. <https://doi.org/10.1145/3491101.3519616>
- Created a Virtual Reality based sorting tool for use in Generative Design workflows
- Designed novel spatial interactions for filtering a parametric design space

Undergraduate Research Assistant, BLUES Mentor: Eleonora Losiouk

Sep 2021- Present

- Conducted a review of prior work to create a taxonomy of known virtualization-based malwares and attacks for Android
- Built Gradle scripts for virtualizing malwares and assessing their detectability by commercial antivirus apps. Used Bash, Gradle, and Python scripts to create an semi-automated system for identifying virtualization-based malwares from virus databases, allowing for more in-depth analysis

California State University, San Marcos

San Marcos, CA

Computer Science Intern

Jan - Mar 2019

- Aided in a qualitative study on alternate methods of computer file structure representation
- Used the Unity Engine to create a three-dimensional file visualization system compatible with GitHub

----- PROJECTS -----

Firework Simulation (HLSL, C#, Unity)

[Link](#)

- Custom firework/smoke simulation and renderer

ASCII graphics renderer (C++)

[Github Link](#)

- First person camera / controller using ASCII characters, runnable in terminal

Raymarcher Kaleidoscope (HLSL, C#, Unity)

[Github Link](#)

- Raymarch shader for Unity, designed to take input from standard unity gameobjects for easy manipulation

----- ADDITIONAL SKILLS -----

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|-----------|---------------------|----------|
| - Java/C# | - C/C++ | - Python |
| - AWS | - Swift, RealityKit | - XR/VR |