

Grayson Clark

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Links

- <https://faultypine.github.io/#/>
- <https://www.linkedin.com/in/grayson-clark-ab67a2221/>
- <https://github.com/FaultyPine>

Skills

- **Programming Languages:**
 - C++
 - Python
 - Rust
 - C
 - Java
 - C#
 - Proficient in HTML/CSS
- **Tools:**
 - Unix/Windows terminals
 - Debugging - GDD/debuggers
- Software testing - Unit tests
- Version Control - Git
- Unity/Godot
- **Other:**
 - Computer Networking
 - Cooperation with teammates
 - Tutoring students
 - Library design
 - Documentation
 - Requirements analysis and design phases

Experience

Camp Counselor, 06/2015 - 08/2020

Deerfield Park District - Deerfield, IL

- Employed by Deerfield Park District
- Led and was responsible for a group of 13 kids
- Coordinated and led group activities for campers and counselors. (Example: Field Trips)
- Helped campers build confidence and self-esteem through consistent guidance and mentoring.
- Collaborated with staff to establish and maintain supportive and structured environment.
- Maintained effective consistent communication with parents and families using email.

Education and Training

Expected in 05/2024 Indiana University Bloomington - Bloomington, IN

Bachelor of Science Computer Science

- Majoring in Computer Science with a specialization in Game Development
- 3.6 GPA
- Topics covered in my classes: Python, Java, Data Structures, Discrete Structures, HTML/CSS,

Personal Projects

- Lead developer/Creator of Brawlback - a Work-In-Progress implementation of Rollback Netcode and Integrated Matchmaking for Super Smash Bros Brawl. I learned about fighting game netcode, and how games use clever tricks to hide the effects of network latency.
- Formerly lead developer for HewDraw Remix, an open source modification of Super Smash Bros Ultimate, written in Rust, with currently ~4000 active players, which was recently made open-source in early March 2022. Was responsible for framework restructuring/maintenance, basic CI/CD infrastructure, an auto updater/launcher, gameplay modifications, and various other project related contributions. Currently, we have ~25 contributors, to varying degrees. The project is composed of approximately 100,000 lines of Rust, as well as python scripts for automating various tasks and infrastructure
- Created UltimateModShop, a homebrew application written in C++ for the Nintendo switch that allows users to download, install, and manage Smash Ultimate mods directly on their switch, using the GameBanana API. I learned about using API's, as well as the general idea of how to use GUI libraries and how to create menus that are easily accessible and usable by users. This project was very UX oriented, and taught me how to design software for a user.
- Created multiple modification plugins for SSBU (Smash Ultimate) in Rust, as well as a guide to creating those plugins. This taught me about how to teach other people complicated topics, and how to create and maintain shippable products while making sure users are satisfied.
- HeapRegionDiffGenerator: A python script that takes in binary files and parses differences between them while styling the output into a format I use for Brawlback. This helped me flex my tool development muscles, and is a good example of the kinds of tools I create to work more efficiently.