

Joshua Fratis

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EDUCATION

University of Pittsburgh	Pittsburgh, PA
Bachelor of Science in Computer Science	Expected December 2024
Bachelor of Arts in Digital Narrative & Interactive Design	GPA: 3.88
Honors: Honors College, Dean's List, University Scholarship	

SKILLS

| C# | C | Python | Java | JavaScript | Web Development | Unity | DOTS | Git | JIRA | Game Design |
| 3D Math & Linear Algebra | Project Planning | Prototyping | Playtesting | Communication | Teamwork |

EXPERIENCE

Blast Furnace Games - https://www.blastfurnacegames.com/	Pittsburgh, PA
<i>Co-founder, Gameplay Programmer</i>	January 2023 - present

- Co-founded an independent game studio **on track to ship an MMO FPS game**, Steelpunk, by next summer.
- Lead and delivered new systems including enemy behavior, 3D pathfinding, and procedural generation.
- Developed networked multiplayer features utilizing rollback netcode and lag compensation, maximizing performance and reducing latency to deliver an exceptional online multiplayer experience.
- Directed a shared vision with a team of dedicated student developers in weekly design meetings, pair programming sessions, and constant online communication which enabled our success.
- Won "GCS Gold" at **Carnegie Mellon University's** Game Creation Society's 2023 Games Festival.

TerraSim, Bohemia Interactive Simulations	Pittsburgh, PA (Hybrid)
<i>Application Engineer Intern</i>	May 2023 - August 2023

- Shipped contributions to an existing codebase and established services supporting VBS4, a real-time 3D combat simulation game engine.
- Designed and delivered front-end and user interface features for Mantle ETM, a simulated terrain creation pipeline and management platform governed by a service oriented architecture.
- Utilized Agile development practices and version control systems across multiple repositories such as maintaining feature branches, resolving merge conflicts, and performing code reviews.

BehaVR, Inc.	Nashville, TN (Remote)
<i>QA Software Engineer</i>	May 2022 - August 2022

- Contributed to the development of First Resort, a 2023 Games for Change's Best Health Game nominee.
- Performed tests of VR games designed to promote mental and behavioral health.
- Developed automated tests for PWAs (Cypress) to ensure functionality and accessibility.
- Wrote test cases for VR games and progressive web applications.

University of Pittsburgh Honors College	Pittsburgh, PA
<i>Creative Arts Fellow</i>	January 2022 - August 2022

- Wrote an interactive story designed to engage players in narrative roleplay without challenge mechanics.
- Designed and completed long term project plans, thorough user testing, and iterative prototypes.
- Produced thorough documentation to communicate vision, design, and process to collaborators.