# TRISTAN JAMES HOLUB

919-745-9106
tholub99@gmail.com
tristanholub.com

## SKILLS

**PROGRAMMING**: C#, C++, Python, Java, NodeJS, JavaScript, HTML5, CSS, Bash, C, OpenGL, GLSL, WPF, Qt
**SOFTWARE**: Unity 3D, Maya, RenderDoc, Microsoft Office, Photoshop, Illustrator
**PROJECT MANAGEMENT**: Agile/Scrum, Git, Perforce, JIRA

## EDUCATION

**DREXEL UNIVERSITY, PHILADELPHIA PA** — ANTICIPATED GRADUATION: JUN 2023
College of Computing and Informatics — CUMULATIVE GPA: 3.83
Bachelor of Science in Computer Science
Concentration in Game Programming and Development

## WORK EXPERIENCE

**AMAZON ROBOTICS** — Westborough, MA — MAR 2022 – SEP 2022
Software Engineer CO-OP

- Updated and automated onboarding processes to improve accessibility for new customers.
- Added new back-end functionality to automatically allocate resources to new users with AWS.
- Redesigned front-end pages to be more user-friendly and reflect the automation update to increase accessibility.
- Researched and developed prototype back-end solutions for new features.
- Discussed vision and needs with multiple teams when designing tools.

**ANALYTICAL GRAPHICS, INC.** — Exton, PA — MAR 2021 – SEP 2021, APR 2020 – SEP 2020
3D Graphics - Jr. Programmer/Developer CO-OP

- Added support to the STK3D Engine for multiple glTF model extensions including EXT_mesh_gpu_instancing (instanced rendering), EXT_meshopt_compression (mesh optimization), and KHR_textures_basisu (texture compression).
- Wrote new loaders for the i3dm model format, a payload delivered by 3D Tilesets that describes instanced glTF models.
- Updated glTF models with KTX2 compression support for Image Based Lighting.
- Core contributor to the STK3D Modernization effort with the end goal of rendering a minimal scene in STK using a Core OpenGL profile.
- Delivered multiple presentations discussing performance improvements and feature additions shipping in future product versions.

## PROJECT EXPERIENCE

**DONUT DUNKERS: 3D Puzzle Game** — SEP 2021 – DEC 2021
Production Lead, UI Developer

- Worked closely with different disciplines within the team to create and assign tasks, as well as identify roadblocks and brainstorm solutions.
- Collaborated closely with other UI Developers and Designers to create a fluid and user-friendly UI in the game.
- Ran playtests and organized survey data into reports to allow the team to iterate and develop based on user feedback.

**HEAVY METAL: VIRTUAL REALITY MECH GAME** — JAN 2019 – JUN 2019
Project Leader, Developer, Designer

- Collaborated with classmates over six months to design and develop a virtual reality game in Unity 3D.
- Developed C# scripts to support core gameplay functions such as user interaction, weapon firing, and player movement.
- Created 3D models and animations using 3DS Max for use in the game's development.
- Lead the team during meetings/development sessions as well as managed the task timeline, holding teammates accountable to deadlines and adjusting the overall project flow as necessary.

## RELEVANT COURSEWORK

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|---|---|
| Artificial Intelligence | Computer Graphics |
| Linear Algebra | Data Structures |
| Computer Game Design & Development | Fundamentals of Physics I, II, III |
| Advanced Computer Programming | Game AI Development |
| Web and Mobile App Development | Differential Equations |

## HONORS AND AWARDS

**DEAN'S SCHOLARSHIP,** Drexel University — 2018 – *PRESENT*
**DEAN'S LIST,** Drexel University — 2018 – *PRESENT*

## ACTIVITIES

**LEAGUE OF LEGENDS E-SPORTS COMPETITOR,** Drexel E-Sports — 2021 – *PRESENT*
**ENTRPRENEURIAL GAME STUDIO,** Drexel University — 2019 – *PRESENT*
**MATHEMATICS & COMPUTER SCIENCE SOCIETY,** Drexel University — 2018 – *PRESENT*