# Bryce Hanna

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## EDUCATION

**Georgia Institute of Technology**                                                              Atlanta, GA
*Bachelor of Science in Computer Science, Minor in Mathematics*                *Expected Graduation May 2026*
- **GPA**: 4.0/4.0
- **Concentration**: Systems & Architecture and Theory

## SKILLS

**Languages**: Java, Python, C#, Lua/Luau, Rust, Typescript, Javascript, C, C++, SQL, HTML/CSS, Haskell, Kotlin, Elm
**Frameworks**: React.js, Node.js, Three.js, .NET, SQL Server, Pygame, Flask
**Developer Tools**: Git, Vim, Blender, Godot, Unreal Engine, Unity, DaVinci Resolve, Inkscape
**Volunteering**: Central Night Shelter, Blessings in a Backpack, MUST Ministries
**Student Organizations**: Phi Sigma Kappa Fraternity, Wrestling Club, Invention Studio
**Interests**: 3D Printing, CAD, 3D Modeling, Juggling, Woodworking, Metalworking, Lockpicking, Creative Writing

## EXPERIENCE

**Profisee**                                                                      May 2023 - December 2023
*Software Developer Intern*                                                                *Alpharetta, GA*
- Utilized C# and SQL to develop and test the Common Data Platform to standardize database access for microservices
- Applied SwaggerAPI to create a REST API endpoint for the File Attachment Service enabling the DevOps team and customers to efficienctly upload and download configuration files
- Created over 100 unit and integration tests to ensure production code quality and patched dozens of bugs in the process

**Educational Computer Science YouTube Channel (@BRicey)**                         March 2020 - Present
*Technical Content Creator, Editor, and Relations Manager*
- Script, record, and edit programming tutorials on advanced concepts in the Roblox Studio Game Engine
- Educate an auidence of more than 15,000 subscribers with over 2 million total views on essential CS concepts
- Analyze retention data to increase content interactions to reach an annual revenue of over $1,500

**Low Cost Aerial Autonomy Vertically Integrated Project**                          January 2024 - Present
*Researcher*
- Collaborated with team members to characterize and implement a P51 Mustang into a custom flight dynamics model
- Leveraged python with Matplotlib and Pandas to visualize Monte Carlo Tree Search algorithms with a 80% win rate in dogfighting simulations with autonomous P51s and F16s

## PROJECTS

**Portfolio Website** | *ThreeJS, React, React Three Fiber, Jotai, Typescript, Blender*       January 2024 - May 2024
- Developed a frontend web app to showcase projects and experience in an interactive 3D environment
- Integrated declarative React components and Jotai state management with animated Blender models
- Created models and animations in Blender from scratch using low-poly 3D modeling techniques

**B-29 Superfortress** | *C, Make, Game Boy Advanced*                                        April 2024
- Developed a Game Boy Advanced game implementing WWII aircraft flight using C
- Added features such as scrolling backgrounds and animations using intimate knowledge of Direct Memory Access
- Optimized the game by studying bitmap based video buffers and limiting draw calls

**GHEvolution** | *Python, Pygame, Neuroevolution, Articial Intelligence*                      July 2022
- Studied Natural Selection and Evolution to derive how generational evolutionary algorithms function
- Implemented a simulation using Python to demonstrate learning by survival of the fittest over generations
- Visualized the artificial life with Pygame and analyzed mock brain structures with Matplotlib

**ColorChaos: THE NEXT GENERATION** | *Luau, Roblox Studio, Blender*              February 2020 - June 2020
- Developed a Roblox game with many game modes and tools, garnering over 2 million visits and 60 concurrent players
- Released monthly updates and published YouTube content to earn over $800