Alex Hu

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EDUCATION

University of Texas at Austin   Austin, TX
Bachelor of Science in Computer Science   *Expected May 2026*

- Relevant Coursework: Data Structures, Computer Organization and Architecture, Discrete Mathematics, Operating Systems, Object Oriented Programming, Linear Algebra

Scholarships/Awards:

* Texas Education Agency: Highest Ranking Graduate
* HACKTX 2023: Best Pitch, The Sweet Talker

PROJECTS

Unity DOTS Boids | *Unity DOTS, Visual Studio, C#*   github.com/FlabbyToes/DOTSnBOIDS

- Developed a simple Boids algorithm using Unity DOTS for greater performance
- Experienced working with complicated libraries with limited resources/documentation
- Learned about optimization techniques related to managing large set of data/entities such as octrees
- Implemented an obstacle avoidance system for more complex behaviour in different environments

Unity Procedural Turtle | *Unity, Visual Studio, C#*   github.com/FlabbyToes/procedural-turtle

- Developed a animated turtle in Unity with procedural walking, tail flicking, and head aiming, plus moving shells
- Discovered clever solutions to problems created from the limitations of existing tools
- Learned about the fundamentals of procedural animation and the related algorithms
- Implemented vector mathematics for smooth, natural-looking movement

Unity Fun Shape Game | *Unity, Visual Studio, C#*   flabbytoes.itch.io/fun-shape-game

- Created a simple 2D platformer in Unity, producing all aspects of the game solo
- Experienced and pipelined the production of a software from conception to deployment
- Gained insight from play testers to discover the discrepancies between player experience and designer vision
- Learned to adapt behaviour of scripts to the limits and quirks of Unity

Bank Heist Calculator | *Visual Studio, C#, .NET Framework*   github.com/FlabbyToes/BankHeist

- Developed a simple Windows Form app for HackTX that calculates time to complete a bank heist
- Learned to accept certain trade-offs in design and functionality to ensure delivery at a strict deadline
- Discovered more about C#, the .NET framework, Visual Studio, such as properties and controls of forms/elements
- Pitched the project for the HACKTX 2023 Hackathon and won an award the best pitch

TECHNICAL SKILLS

Languages: Java, C, C++, C#, Python, HTML, CSS, JavaScript
Developer Tools: Unity, Git, VS Code, Visual Studio, IntelliJ, Eclipse