

SUMMARY	<p>Senior software engineer with 14 years of experience primarily in C++ and C#. Previously a software engineer and technical lead at EA working on College Football. Completed a Master's in CS from Georgia Tech and released my own 2D puzzler on Steam. Extensive experience working on projects and teams remotely.</p>
WORK HISTORY	<p>Space Cadet Interactive <i>Solo Developer on Bake Until Done</i> January 2024 - Present</p> <ul style="list-style-type: none">• Constructed a system in C++ for procedurally generating levels in a deterministic manner• Create a system for “baking” in the game that is supported through C# scripts• Integrated level generation system into <i>Bake Until Done</i>, being developed in Godot <p><i>Solo Developer on Sam & MaRU (2021)</i> August 2015 – August 2021</p> <ul style="list-style-type: none">• Designed and implemented system for allowing the player to manipulate the physical interactions of objects in a level to solve puzzles• Developed all code, art, content, and tools for puzzle-solving game using Unity and C#• Designed custom programming language based on C++ syntax to teach coding principles• Architected custom loading system and level editor for rapid iteration of puzzles with an object-oriented design focused on loose coupling of game dependencies• Created all the production art and animation assets for the game• Developed build system for packaging content to support different gameplay resolutions, localization, platforms, and release types• Implemented multi-threaded puzzle simulation system to prevent brute force solutions• Augmented the base Unity 2D rendering with custom shaders <p>Electronic Arts - Tiburon August 2021 – December 2023 <i>Software Engineer II & Lead – EA College Football 25</i></p> <ul style="list-style-type: none">• Technical Lead on Road to Glory mode for first College Football release in 10 years• Implemented networked features from backend to UI in C++, while integrating with existing client/server codebase• Developed best practices with other tech leads for our teams• Broke down tasks and interfaced with producers and development directors to get work scheduled• Worked closely with designers to ensure in-game features meshed with game design while working within technical and time constraints• Created technical design documentation to meet design needs and guide other SEs• Collaborated regularly with other teams working on both College and other games• Reviewed code and other submissions from the team <p>Tiltfactor Game Lab at Dartmouth College May 2016 – August 2021 <i>Programmer for multiple interactive digital arts projects</i></p> <ul style="list-style-type: none">• Developed iPad Swift apps, web pages, and PHP server tech for an award-winning interactive digital experience• Implemented a neural network-based generative art piece that created unique images based on training a DCGAN with Python• Created two JavaScript-based geometric art generation systems

National Instruments	August 2009 – December 2018
<i>Senior Software Engineer (2017-2018) on LabVIEW UI Team</i>	
<i>Staff Software Engineer (2013-2017)</i>	
<i>Software Engineer (2011-2013)</i>	
<ul style="list-style-type: none"> • Designed and developed multiple high-profile LabVIEW widgets and controls • Integrated new controls into a C# codebase with tens of thousands of classes • Collaborated closely with design, UX, and infrastructure teams to ensure project success • Engaged in an Agile development process, creating stories and breaking down tasks • Reviewed code for the team and department to ensure code quality • Implemented a control for displaying a 3D point cloud of hundreds of thousands of points with user interaction and without the need for hardware acceleration 	
<i>Senior Software Engineer on LabVIEW Web team (2018)</i>	
<ul style="list-style-type: none"> • Developed multiple major features in a mixed C++ and JavaScript web application • Served as technical point of contact for junior members despite short tenure on team 	
<i>Applications Engineer (2009-2011)</i>	
<ul style="list-style-type: none"> • Directly supported customers and sales staff, resolving technical issues • Became a technical lead in 100+ person department for LabVIEW and software issues • Taught multiple customer-facing classes on our products in person and online 	

SKILLS	Languages: C#, C/C++, Python, GDScript, JavaScript, Rust, Swift, Java Frameworks/Engines: Unity, Unreal, Frostbite, Godot, WPF Tools and Other Knowledge: Git, Perforce, Visual Studio, JIRA, Agile, Steamworks, Shaders	
EDUCATION	Georgia Institute of Technology M.S. in Computer Science; GPA: 4.0	January 2019 – May 2021
	Vanderbilt University B.E. in Computer Engineering and Mathematics, Summa Cum Laude; GPA: 3.81	August 2005 – May 2009