

# WILL LACEY

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## EDUCATION:

### **Master of Science in Computer Science**

**2019 - 2020**

*Southern Methodist University - Bobby B. Lyle School of Engineering*

GPA: 3.54

### **Bachelor of Science in Computer Engineering**

**2015 - 2019**

Minor in Mathematics; Minor in Creative Computing

*Southern Methodist University - Bobby B. Lyle School of Engineering*

GPA: 3.49

## TECHNICAL EXPERTISE:

Programming Languages: C# | Python | JAVA | C/C++ | MATLAB | R | Swift | Objective-C | Blueprint | MySQL | PHP | Apache | HTML | CSS | JavaScript | ProcessingJS | Arduino | Verilog

Software Applications: Unity | Unreal | Photoshop | Blender | Steamworks | Spine | Tensorflow | Jira | GitHub

Other Skills: Algorithm Engineering | Scrum Methodology & Agile Project Management | Object Oriented Programming | Software Engineering | Database Management and GUI

Relevant Courses: Machine Learning | Artificial Intelligence | Mobile Applications & Learning | Data Mining | Algorithm Engineering | Operating Systems and System Software

## EXPERIENCE:

### **Kokowolo | Indie Game Developer | Remote**

**2022 - Present**

- Prototyped a 2.5D puzzle platformer with a focus on fluid movement and a modular ability system
- Built a deterministic 2D physics engine using AABB collisions and NVIDIA's PhysX engine
- Designed a dynamic mesh triangulation package allowing for custom 3D Tilemap meshes
- Prototyped a hex-based roguelike strategy game based on XCOM's cover system
- Implemented 3D A\* pathfinding on a multi-floored hexagonal grid to navigate AI units to objectives
- Crafted a combat event scheduler algorithm for both synchronous and asynchronous task allocation

### **SonoSim | Software Engineer & Unity Developer | Los Angeles, CA**

**2021 - 2022**

- Optimized a legacy codebase of a cutting-edge ultrasound simulation enhancing performance and realism
- Developed and designed intuitive and engaging UI layouts improving user engagement and learning
- Collaborated closely with product managers and stakeholders to ensure alignment on task prioritization

### **Self-Employed | Indie Game Developer | Remote**

**2020 - 2021**

- Produced a multiplayer minimalist tabletop strategy game with a competitive focus
- Engineered a Greedy selection of a Minimax algorithm to develop the best possible move
- Integrated Steamworks multiplayer API for online gameplay
- Managed a team, designed mechanics, and handled social media for over 2000 hours

### **Northrop Grumman | Machine Learning & Artificial Intelligence Intern | El Segundo, CA**

**Summer 2017/2018**

- Implemented *You Only Look Once* neural architecture in Python for autonomous target recognition
- Enhanced speed and accuracy in processing synthetic aperture radar images
- Constructed machine learning programs to analyze patterns in network traffic
- Researched software to improve the X47 and other government-contracted AVs
- Achieved *Top Performer*, landing in the top 10% of performing interns

CLEARANCE: Secret Security Clearance

**Summer 2017**

PORTFOLIO: will-lacey.com

HOBBIES: World-building | Chess (2000+) | Backpacking | Sandcastles