# **TUNG (ANDERSON) LE**

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### **EDUCATION**

# **University of Massachusetts Amherst**

Expected Fall 2026

Bachelor of Science in Computer Science

GPA: 4.0

Coursework: OOP, Calculus I-II, Linear Algebra, \*Reasoning Under Uncertainty, \*Data Structure, \*Intro Computation Activities: NASA Space Apps, CICSOFT, Recreational Math, ACM Machine Learning, HackUMass XI, Hackher413. \*Spring 2024

## **EXPERIENCE**

Software Developer Aug 2023 - Present

**BUILD UMass** 

- Worked closely with 3000 lines in codebase, resolve team merge conflicts, translate client's objectives into product.
- Built and debugged Serialization System for saving. Optimized loading time by 9%. Analyzed file formats & common data types to design data structure for safely encoded/decoded from disk via JSON or Scriptable Object.

Junior Designer May - June 2021

Autonomous Inc

Created motion designs, banners, advertisements, identities using Photoshop & Illustrator for 20+ blog entries.

## **PROJECTS**

# **HoloHands: 3D Navigation with Gestures**

<u>link</u>

Intuitive 3D navigation & computer control by hand gestures in real-time. Using webcam even it has no depth perception.

Annotated data on images, achieved 82% mAP50 model train. Custom logic on Finger Pose to Intents response.

## **Al Augmented Lab Assistance**

link

Educational AR Lab equipped with Multi-Users, Real-time assistance, Tools Recognition.

- Data annotation on 300 utterances + 20 entities for prototype AI model training, implemented smart search for Implicitly-Described Intents by integrating a SQL database..
- Increased AI model F1 accuracy 52% to 73% through multiple training and evaluation cycles using new labeled data and parameter tuning, reducing Overfitting and improving model Generalization.

#### **Terraforming Simulation**

link

NASA Space App Challenge 23. Win \$10.000 of NASA Boston AWS Award.

- Avoided premature optimization, reduce 32% merge conflicts, programmed 3D systems & editor for data input.
- Presented our project virtually, got awarded \$10,000 in AWS credit by a panel of industry-leading experts from NASA, Harvard, Silicon Valley startups.

Blimp - Android App

Published on Google Play. Currently on Beta (Open) Testing.

- Wrote scalable code using MVC pattern, achieving loose coupling, reducing component-dependency & code duplication in codebase. Minimized checks and draw calls using events system in Observer Pattern, faster 28 FPS compared to unnecessary property checks in game-loop.
- Implemented Singleton, State Machine, Factory patterns in architecture. Programmed state machines for key in-game systems to modularize over 4000 lines of code.

ECS Engine <u>link</u>

Basic game engine as a project after finishing self-learned course COMP 4300 by Professor David Churchill.

 Prototyped 2D game engine from the bottom using C++ and SFML. Achieved comprehensive understanding of game engine internals, optimizing main loop structure and tick rates, implemented Entity-Component-System (ECS) architecture, data-oriented designs for scalable, reusable game development.

## **TECHNICAL SKILLS**

Personal Website: https://tungle.tech

Programming: C#, Java, Python, C++, JavaScript, Typescript, React/Native, MERN Stack.

Tools: OpenCV, HTML, CSS, SQL, Unity, Git, AWS, Firebase, NumPy, PyTorch, TensorFlow, Docker, Adobe Suite.

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