

Aaron Gardner

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EDUCATION

University of Texas at Arlington

Expected: May 2026

Bachelor of Science in Computer Science (GPA: 3.4 / 4.0)

- Relevant Coursework: Computer Graphics(Python & OpenGL), Data Structures and Algorithms (C++),
- Artificial Intelligence (Python), OOP Software Engineering(Java & Android Framework)

EXPERIENCE

CAE

October 2022 – Present

Visual Integration Co-Op
Arlington, Texas

- Authored documentation reducing onboarding time
- Cmake build optimization: implementing Precompiled headers and cyclic dependencies cut build times by 67%.
- Created proof-of-concept radar simulation using normal maps and substances demonstrating minimal information feasibility.
- Debugging OpenGL shaders.

Wagtime Doggie Daycare

May 2022 – August 2022

Daycare Attendant
Arlington,Texas

- Developed user-friendly interfaces using Angular, improving customer satisfaction scores by 18%.
- Implemented automated unit testing using Jest, increasing code coverage by 30% and reducing production bugs.
- Collaborated in Agile sprints with many different teams to deliver features on time.

PROJECTS

Personal OCR Model

Technologies: TrOCR, PyTorch, Scikit image

- Developed a python script for segmenting full pages to line segmentation using scikit image.
- custom annotated dataset from my personal notes to finetune to an individual's handwriting.
- Improved model performance from the base model word accuracy as 3% to 42%..

Hive Space (Senior project)

Technologies: TypeScript, React Native, Clerk, MongoDB, npm

- Built a cross platform app using React Native and Typescript to allow access on any platform.
- Implemented RAG pipeline for converting user notes to quiz creation.
- Managed MongoDB implementing schemes for User statistics and RAG pipeline.

OpenGL Solar System Simulation

Technologies: C++, OpenGL, Glew,

- Built a real-time 3D solar system simulation using C++, OpenGL, and GLEW with accurate planetary orbits and rotations.
- Implemented custom rendering pipeline with lighting models and texture mapping for realistic planetary visuals.
- Developed camera controls and scene management for dynamic navigation through the solar system

TECHNICAL SKILLS

Programming Languages: Python, C++, JavaScript, Java, TypeScript

Frameworks and Tools: Node.js, TensorFlow, Pytorch, React Native, PostgreSQL, GitHub Actions, Flask,

Concepts: RESTful APIs, CI/CD, Machine Learning, Agile Development