

Kalev Martinson

404-662-8980 | kallikalev@gmail.com | linkedin.com/in/kalevm

EDUCATION

Kennesaw State University

Marietta, GA

Bachelor of Science in Computer Science, Bachelor of Science in Mathematics

August 2022 – May 2026

- Concentrations in Artificial Intelligence and Applied Mathematics
- 4.0 GPA, named to Fall 2022 and Spring 2023 President's List
- Relevant coursework: Artificial Intelligence, Operating Systems, Object-Oriented Programming, Data Structures, Multivariable Calculus, Linear Algebra, and Real Analysis

EXPERIENCE

Machine Learning Research Assistant

August 2023 – Present

Kennesaw State University

Marietta, GA

- Implemented reinforcement learning models to create an autonomous Minecraft agent

Software Development Intern

May 2023 – August 2023

Amazon Prime Video Sports

Seattle, WA

- Developed a new view using SwiftUI on the Prime Video iOS app, impacting millions of customers
- Designed data schema and wrote server code to connect front-end UI to back-end live-updating data
- Participated in code review, the software development life cycle, and coordinating across multiple teams

Robotics Research Assistant

October 2022 – May 2023

Kennesaw State University

Marietta, GA

- Developed a 3D kinematic robot simulator based on linear algebra, written from scratch in C++
- Programmed a biomimetic hexapod robot to walk, mimicking the gait patterns of a fire ant
- Assisted with the use of a convolutional neural network in DeepLabCut to extract ant leg positions from a video
- Presented at the Symposium of Student Scholars to an audience of fellow students and professors

Academic Tutor

October 2022 – May 2023

Kennesaw State University

Marietta, GA

- Provided supplemental instruction to increase understanding of lectures and homework
- Taught Calculus, Linear Algebra, Object-Oriented Programming, and Graph Theory
- Raised student grades in tutored classes by a full letter grade on average

PROJECTS/ACTIVITIES

Kennesaw State University Artificial Intelligence Club

August 2023 – Present

- Vice President of club of approximately 20 members
- Helped plan long-term direction of club, coordinated meetings and projects

Neural Network Framework | C++, CUDA, Metal

- Created a framework for modular neural networks in C++
- Derived and implemented dense layers and multiple activation functions
- Used CUDA on Windows and Metal on Mac to accelerate training using the GPU
- Tested by solving MNIST, achieving 97.5% accuracy

Rendering Engine | C++, OpenGL

- Created a 3D rendering engine from scratch in C++, using OpenGL to display geometry to the screen
- Implemented Phong shading, with diffuse lighting and specular highlights
- Implemented 3d mesh loading, allowing models and materials to be imported from modeling software

Cambridge High School Computer Science Club

August 2019 – May 2022

- Co-owner of computer science focused club of approximately 15 members
- Led weekly meetings, created lesson plans and PowerPoint presentations about computing concepts
- Advised and guided club members with personal projects and organized collaborative events

TECHNICAL SKILLS

Languages: C++, Java, Python, Swift, JavaScript, Lua

Frameworks: SwiftUI, Combine, PyTorch, OpenGL

Developer Tools: Git, Visual Studio/VS Code, Xcode, CLion, PyCharm, IntelliJ