

Jack R. Keller

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Education

Georgia Institute of Technology | Atlanta, GA

Master of Science (M.S.), Computer Science—GPA: 4.0

January – December 2025

Specialization: Modeling & Simulation

Bachelor of Science (B.S.), Computer Science—GPA: 4.0

August 2021 – December 2024

Concentrations: Intelligence (AI), Modeling & Simulation | Minor: Sustainable Cities

Key Coursework: Data Structures & Algorithms, Machine Learning, Computer Vision, Simulations, Systems & Networks, HPC

Experience

Honeywell

Software Engineer Intern | Atlanta, GA

May – August 2025

- Enhanced training simulations for industrial plant operators by redesigning a legacy C++/Fortran DCS emulator in C#.
- Achieved 2x performance gain over the legacy system through architectural improvements and efficient implementation.
- Built a modular, extensible OOP architecture from scratch by creating and implementing UML diagrams.

Future IT Leaders Intern (GenAI) | Charlotte, NC

May – August 2024

- Reduced product comparison time by 80% through developing a RAG tool using OpenAI APIs and vector embeddings.
- Generated \$107k annually by integrating ServiceNow, GitHub Actions, and REST APIs to automate VM deployment.
- Collaborated with key business stakeholders to gather and refine POC requirements, employing an Agile methodology.
- Selected to emcee the final intern presentations to IT leadership.

J. J. Keller & Associates, Inc. (2,000+ employees) | Neenah, WI

May – August 2023

Software Developer Intern

- Generated \$500k in first-year revenue by delivering a customer-facing MVP on an Agile team of 5 developers.
- Wrote 33% of the backend for the MVP, developing Azure Function APIs in C# and integrating them with a React frontend.

Head Teaching Assistant | Georgia Tech | Atlanta, GA

August 2023 – Present

Design & Analysis of Algorithms (Head TA), Computer Organization & Programming (TA)

- Head TA of Design & Analysis of Algorithms, overseeing 600 students and 25 TAs.
- Co-led Honors Algorithms: designed homeworks and a project, guided students through problem solving and proofs.
- Taught 50+ students weekly and held office hours on computer architecture topics including digital logic, assembly, and C.

Puerto Rico Planning Studio | Atlanta, GA | San Juan, PR

January – May 2024

Undergraduate Student Researcher

- Conducted post-disaster reconstruction research in PR, utilizing R and GIS mapping tools to analyze construction trends.
- Collaborated with the Center for a New Economy; presented findings at the 2024 Georgia Tech Sustainability Showcase.
- Interviewed government agencies and non-profits to understand local issues while conducting fieldwork in San Juan, PR.

Projects

Military Defense Simulation

January – May 2025

- Built an agent-based model to analyze terrain-weapon tradeoffs; presented to professors, generals, and govt. officials.

Car Image Classification

January - May 2024

- Applied machine learning techniques (CNN, PCA) to detect car models from images, achieving roughly 88% accuracy.

Campus Discovery Portal

August - December 2022

- Developed a web portal from scratch using ReactJS, Java Spring Boot, and the Scrum development lifecycle.

Skills

Programming: Python, C, C#, C++/MPI, PyTorch, TensorFlow, NumPy, Pandas, JavaScript, ReactJS, React Native, Java, SQL, R

Software: REST APIs, OpenAI APIs, Git/GitHub, Docker, UiPath, .NET, Azure Functions/Storage, ServiceNow, GIS

Leadership & Activities

- Reformed University Fellowship (RUF):** Led a Bible study for students at Georgia Tech (3+ years).
- Robotic Musicianship Lab:** Led a small team of students to develop a Python UI for a guitar-playing robot.
- Hobbies:** Violin (WI State Honors Orchestra), Running (high school XC captain), Tennis (high school varsity).