Noah Gardner

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github.com/ngngardner

Education

Kennesaw State University — Kennesaw, GA
Master of Science in Computer Science — *Expected May 2022*

Kennesaw State University — Kennesaw, GA
Bachelor of Science in Computer Engineering (Magna Cum Laude) — *Awarded May 2020*

Skills

Languages: Python, Go, Julia, C, C++, Java **Other**: Machine Learning, API Design, Eagle Scout
Technologies: Docker, Git, Linux, Nix, SQL, GCP, Tensorflow, OpenCV

Experience

Software Engineer Intern — Atlanta, GA
NCR — *May 2021 - August 2021*

- Constructed a Go retail microservice to corner a percentage of a $16 billion market by allowing selling lottery tickets at NCR self-checkout terminals
- Reduced PostgreSQL database load by 10% by caching frequently requested data in Redis
- Accomplished 3 approved inventions and 2 patents submitted through the patent review board

Graduate Research Assistant — Kennesaw, GA
Kennesaw State University — *May 2020 - Present*

- Proposed a solution for efficient sampling of experiences for training reinforcement learning models
- Expanded a clustering algorithm to initialize centroids up to 20% more effectively for image segmentation
- Developing a machine learning pipeline to support ecological research based on texture analysis methods

Innovation Technologist Intern — Atlanta, GA
Emerson — *May 2019 - August 2019*

- Programmed analytics operations system to run on refrigeration control systems data at user-specfied intervals
- Developed a web-based dashboard for technicians to easily visualize analytics results
- Produced scalable code to improve efficiency using dynamic practices and multi-threading techniques

Research Assistant — Atlanta, GA
Emerson — *Jan 2019 - May 2020*

- Developed a serial interface from a microcontroller to a motor contoller to create an autonomous wandering robot
- Improved robotics wandering algorithm by 70% with a key image processing insight
- Collaborated with other assistants to create research proposals and receive funding

Projects

Nutriverify (Patent Pending) — NCR Global Hackathon
Summary: Analyzes nutrition info with computer vision techniques — *Summer 2020*

- Achieved third place in global hackathon with over 2400 participants
- Worked on a team with a diverse skill set to deliver a vision system demonstration
- Prototyped Python backend with Flask and OpenCV to analyze images and serve extracted information

EMG-Based Wrist Movement Prediction — IEEE BIBE 2020
Summary: Predicts extension or flexion of the wrist to promote stroke patient rehabilitation — *Fall 2020*

- Cooperated with local startup *Motus Nova* and KSU ECE department
- Devised a data collection method and automatically labelled collected data from 4 patients
- Designed an algorithm and deployed to an embedded system to predict the direction of motion in real-time