

Robert McCrary

770-833-8110 | robertmccrary.com | rlmccrary1210@gmail.com | [LinkedIn](#) | [GitHub](#)

EDUCATION

Kennesaw State University
Bachelor of Science in Computer Science

Marietta, GA
August 2024 – May 2028

Course Work
CSE 1321(Java), CSE 1322(Java), Discrete Mathematics

EXPERIENCE

Electric Vehicle Team August 2024 - Present
Kennesaw State University Marietta, GA

- Built on top of the team website using the Jekyll framework written in Ruby.
- Programmed and tested autonomous driving algorithms using Python and ROS (Robot Operating System), enhancing the go-kart's navigation and safety systems by 15%.

Software Engineering Intern May 2024 - July 2024
EventSync Remote

- Constructed frontend user interfaces through the Nextjs framework with React and TypeScript and styled with Tailwind.
- Spearheaded development of a component library for design consistency, resulting in quicker deployment times for new features by reducing duplication of effort across three different projects within the team.

TSA Webmaster Woodstock, GA
Woodstock High School August 2023 - December 2023

- Led a team of developers in the TSA Webmaster competition building a website that compiles information for homeowners on clean energy solutions.
- Developed and launched an interactive energy cost calculator, allowing homeowners to estimate savings from switching to solar or wind power; gathered user feedback leading to a 30% increase in engagement on the site.

PROJECTS

PseudoAI | *Next.js, JavaScript, MongoDB, pseudoai.dev* November 2024

- Developed a full-stack application using Next.js, MongoDB, and user authentication to streamline user onboarding and personalized content delivery.
- Implemented advanced AI features, including dynamic problem-solving hints and pseudocode generation.
- Engineered scalable backend architecture with efficient data models and APIs, ensuring seamless interaction between AI modules and the problem database.

Compiler From Scratch | *Go* September 2024

- Converted raw source code into tokens using a lexer and parsed tokens into an Abstract Syntax Tree (AST).
- Validated the AST for meaningful constructs, then translated into an intermediate representation (IR) to facilitate optimization.
- Optimized the IR for efficiency, generating machine code from the optimized representation, followed by linking and assembling to produce the final executable.

Neural Network from Scratch | *Python, Numpy* August 2024

- Developed a neural network from scratch using Python and NumPy.
- Created an FCLayer paired with a robust Activation Layer that employed forward and backward propagation techniques; this architecture increased overall accuracy metrics of the neural network by achieving over 95% on validation sets.

TECHNICAL SKILLS

Languages: Java, Python, C#, C++, SQL, JavaScript, TypeScript, Go
Frameworks: React, Node.js, Express, JavaFX, Swing, OpenGL
Developer Tools: Neovim, Git, VS Code, Visual Studio, PyCharm, IntelliJ, Postman
Libraries: pandas, NumPy, Matplotlib, Torch