# JACK SCHEDEL

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Artificial Intelligence ◇ Embedded Systems

## EDUCATION

**Combined Master's and Bachelor's of Computer Science**, University of Florida — Expected May 2025
3.38 GPA, Dual focuses on Artificial Intelligence and Embedded Systems

**Relevant Coursework:** Mathematics for Intelligent Systems*, Advanced Data Structures*, Machine Learning*, Advanced Systems Programming*, Microprocessor Applications 2*, Operating Systems, Microprocessor Applications, Software Engineering *(* completed by this year)*

**Ponte Vedra High School** — 2017 - 2021
4.50 GPA, National Merit Commended Scholar, AP Scholar with Distinction

## SKILLS

**Languages:** C++, C, Rust, Java, Typescript, Python, PHP, MSSQL, ARM Assembly, MATLAB
**Other:** STM32 and MSP430 Toolchains, Optimization Solvers, Android Studio, Graphic Design

## EXPERIENCE

**Strategy Team Lead, FSGP 2023 Champions,** Solar Gators — September 2022 - Present
Created live telemetry data analysis tools using Typescript to run statistic calculations on the fly in the racetrack pit. Developed static race/physics simulations using Python in conjunction with an optimization solver to calculate optimal track speeds for optimal energy efficiency. Successfully used these tools to manage driving strategy during the 2023 Formula Sun Grand Prix; winning the competition.

**Embedded Systems Intern,** Oak Ridge National Laboratory — Summer 2023
Wrote embedded systems code for an authenticatable tracking system for nuclear containers to be deployed to custom PCBs using MSP430 chips. Used low-power ultra-wideband ranging to determine straight line distance between anchor devices spread around the facilities and container tags; calculating live positioning of each container.

**Fullstack Developer,** Picture Yourself Publishing LLC — March 2020 - Present
Developed a NodeJS webapp using the React framework that offers users an interactive platform to customize pictures and text within children's stories, collaborate with friends, and print hard copies of their final work as picture books. Created and shipped a custom PHP API and MySQL database, deployed to AWS Lightsail and S3.

## PROJECTS

**EndGame 2** — Summer 2023
Developed a UCI-compatible chess engine written in Rust using minimax tree-traversal over custom board analysis algorithms. Implemented alpha-beta pruning, multithreading, and position hashing to improve performance.

**Save the City** — Fall 2022
Built an interactive mobile game to teach living sustainable lifestyle habits to children using minigames with variable difficulties determined by a 4 dimensional linear regression model trained on past user data. Built in 24 hours by a team of 4 as part of the UF AI Days Hackathon.

**Tickr** — Spring 2022
Created the backend framework of a stock analysis app using an Oracle SQL database and a custom-built PHP API. Users can request real-time calculated statistics of a given group of stocks from a large database of stock ticker history.

## INTERESTS

Artificial Intelligence, Computational Problem Solving, Model Compression/Edge deployment, Embedded Systems, Algorithm Optimization, Statistics/Data Analysis, Neovim, Modern Programming Languages (Rust, Go, Zig, etc.)