Suryaprakash Murugavvel

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Education

Georgia State University — Atlanta, GA

Bachelor of Science in Computer Science, Minor in Mathematics — Expected Graduation: May 2027

Relevant Coursework: Data Structures & Algorithms, System-level Programming, Computer Org & Programming, Computer Networks, Discrete Mathematics, Linear Algebra, Calculus I / II / III, Probability & Statistics, Numerical Analysis I, Physics I / II, Electronics.

Skills

Languages: C, C++, Python, JavaScript, HTML/CSS, Verilog, VDHL, MATLAB, MySQL, MongoDB
Frameworks/Libraries: ReactJS, TensorFlow, PyTorch, Pandas, NumPy, Next.JS, Three.JS, Selenium
Networking & Systems: Wireshark, TCP/IP, UDP, DNS
Tools/Technologies: Amazon Web Service (AWS), Docker, Git, GitHub, Emscripten, RestAPIs, Blender, Circuit Analysis (DC Circuits, AC Circuits, Fourier Analysis), Oscillators
Platforms: Windows, macOS, Linux

Projects

Style.Me | Python, HTML/CSS, JavaScript, RestAPIs, OpenAI API — July 2025 – Present

- Engineering a Chrome extension that recommends outfits based on user prompts like “90s aesthetic” or “artist-inspired styles.”
- Optimizing data collection by integrating Selenium-based scraping with fashion APIs to improving product retrieval speed and coverage.
- Utilizing LLMs (OpenAI API) to interpret natural-language style prompts and strengthened full-stack development, data parsing, and UI design skills.

Threadoku | C++, React, WebAssembly, Emscripten, CPR, nlohmann/json — April 2025

- Developed a multi-threaded Sudoku solver compiled to WebAssembly for interactive browser visualization.
- Accelerated solving efficiency by **63%** through parallel processing and algorithmic optimization.
- Enhanced understanding of concurrency, memory management, and performance tuning in C++ and web environments.

PaperKeys | ReactJS, JavaScript, MediaPipe — February 2025

- Created an interactive virtual piano using hand tracking and a printed keyboard template for real-time note feedback.
- Improved tracking precision by replacing OpenCV with custom anchor-point alignment, reducing note-detection errors by **>20%**.
- Applied computer-vision principles and refined skills in event handling, real-time rendering, and user-feedback systems.

DiagnAI | Python, HTML/CSS, JavaScript, Anthropic API — October 2024

- Developed an AI-powered chatbot for symptom screening and personalized health guidance using large language models.
- Reduced average query-resolution time by **35%** through optimized prompt handling and knowledge-base integration.
- Learned to architect scalable backends, manage asynchronous requests, and design intuitive conversational UIs.

Extracurriculars

Rocket Technologies GSU — August 2024 – Present

- Contributed to the design and simulation of model rockets and autonomous rovers using thrust vector control systems to enhance flight stability and precision.
- Improved thrust-vectoring performance by **25%** through iterative testing, control-loop tuning, and data analysis with MATLAB and embedded software tools.
- Gained hands-on experience in **aerospace simulation, sensor calibration, embedded control systems**, and **team leadership** through multidisciplinary collaboration.