9103 Grayland Drive Apt E
Knoxville, TN - 37923

John Carmack

GitHub
Portfolio

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EMPLOYMENT

Research Assistant **University of Tennessee** **April 2020 - Present**

Neuromorphic Computing

- Developed python packages to simulate logical gates in spiking neural networks for both in-house and inter-organizational use among neuromorphic researchers. Features robust unit testing and CI/CD pipeline integration.
- Refactored existing neuromorphic processors to increase network training time by 20%
- Wrote multiple utilities in C++ to facilitate network creation and debugging.
- Responsible for implementing and maintaining the group's C++ API in python3 via pybind11.

Teaching Assistant **University of Tennessee** **December 2019 – Present**

- Lead multiple lab sections for courses including Data Structures and Algorithms and Systems Programming
- Developed supplemental resources aimed at reinforcing student's understanding of course and laboratory material

EDUCATION

Knoxville, TN **University of Tennessee** **Fall 2017 – May 2022**

- Attaining B.S. in Computer Science -- GPA: 3.9
- Undergraduate Coursework: Operating Systems; Databases; Algorithms; Programming Languages; Comp. Architecture; Calculus III; Software Engineering; Systems Programming

TECHNICAL EXPERIENCE

Projects

- **Polling Web Application** link. RESTFUL web application written with a MERN stack.
- **LightsOut!** **link.** Fun puzzle written in React.
- **Threaded Chat Server** **link.** Threaded chat server implemented in Java.
- **PiDration** **link.** Soil analytics application implemented with Arduino nano microcontrollers and a python3 server running on a Raspberry Pi 4.
- **WordSearch** **link.** CLI to generate word searches and their solutions. Implemented in C++.
- **PlayMTG** **link.** Full stack web application implemented with a MERN stack. Allows people to find and review places to play trading card games.

Skills

- C++; C; Java; Python3; JavaScript; React; MongoDB; Express; Node.js; Bootstrap;