

Daniel Fiumara

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EDUCATION

Rensselaer Polytechnic Institute, Troy NY – Class of 2024

Bachelors of Science – Computer Systems Engineering, Minor – Graphic Design, GPA: 3.17

Pertinent Coursework: Quantum Computing and Information, Computer Components (FPGA and Digital Logic), Computer Architecture, Data Structures (C++), Algorithms, Embedded Control, Circuits, Discrete Math, Differential Equations, Multivariable Calculus, Physics 2

TECHNICAL SKILLS

Programming Languages: Python, C++, C, FPGA (Verilog, VHDL), Java Script, HTML, CSS

Software and OS: LTspice, Xilinx Vivado, Git, Linux, Vim, Excel, proficient with 3D modeling and Adobe Suite

Hardware: Raspberry Pi, Arduino, TI MSP432P401R, Digilent Basys 3

PROJECTS

RPiCe: Worked with a team of five students to design a custom IC chip to display the time on an LED matrix. RPiCe utilized open source chip design tools and was submitted to the eFabless open shuttle for fabrication.

TDSE Propagation Simulation: Developed a program using Qiskit to simulate time propagation of a system of particles in a box.

Pentago: Utilized React.js to recreate the board game pentago, including a matrix rotation algorithm and full game state history.

Distance Sensitive Car: Made use of Texas Instrument's RSLK to develop a C program that uses PID control in conjunction with an ultrasonic distance sensor to ensure that the car maintains a predetermined distance from any object in front of it.

RoleBot: Utilized discord.js to develop a role management system for a server of 60+ members. Effectively mitigated moderator abuse.

Homelab: Virtualized a spare PC using Proxmox VE as a hypervisor to support several self hosted services and facilitate personal exploration of networking technologies.

EXPERIENCE

NYDesign

June 2022 – Present

Served as student ambassador to increase awareness and excitement surrounding IC design opportunities. Recruited 20+ students to attend a workshop. Helped design and organize weekly IC design courses. Conducted feedback collection and compilation to improve workshops. Represented the organization at SemiCon and DAC trade shows.

AWARDS

Excellence in Technology, Design, and Engineering

Highest Cumulative Average in Computer Applications Course

Outstanding Sportsmanship in the sport of Bowling

Repeating NYSPHSAA Scholar Athlete

Recognized by the United States Bowling Congress for exceptional level of play

COMMUNITY SERVICE

Saint Ann's Church, Link Crew Leader, Snow Removal, Tutoring

EXTRACURRICULAR INVOLVEMENT

Digital Music Composition, 3D Printing, Youth Engineering Initiative, Varsity Bowling, Saxophone, Lacrosse