

William Greenfield

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Electrical engineering student with a strong background in digital circuit design, energy regulation, and rapid prototyping seeking learning opportunities in artificial intelligence sensor integration and power optimization

EDUCATION

University of Texas at Dallas, Richardson, TX

Expected Graduation May 2021

B.S.E.E. Electrical Engineering Candidate

Relevant Coursework

- Electrical Engineering Laboratory in Power Electronics and Energy Systems, Analog Signals, Digital Circuit Design, PCB Printing Laboratory, High Tech Entrepreneurship, Sensor Feedback Loops, Thermal Dynamics, Machine Language Programming

Extracurricular Activities

- Member of Blackstone Launchpad student accelerator, member of UTD IEEE, member of UTD Robotics Club

WORK EXPERIENCE

WellPower Technologies, Nairobi, Africa, wellpower.tech

Feb 2019 – Nov 2019

Hardware Design Lead and Software Engineer

- Led the hardware architecture prototyping of an industrial solar-powered water filtration system that reuses recycled energy components currently providing clean water for 600+ residents in Nairobi, Africa
- Responsible for the full-stack software development of WellPower's order management system that enables the distribution of clean water throughout Nairobi

VRTX (Virtual Reality), Dallas, TX

Dec 2016 – Aug 2019

CEO and Cofounder

- Founded start up focused on addressing critical inefficiencies and costs in physical therapy treatment through the design of software and the application of virtual reality (VR) in medical care
- Initial pilot program (winter 2018) focused on researching VR applications to improve the quality of life of muscular dystrophy patients at Children's Medical Center Dallas

ADDITIONAL PROJECTS

AI Environment Analyzing Quadcopter

Jan 2020

- A self-learning quadcopter that maps its environment and determines optimum flight paths based on environmental conditions from sensor feedback piloted by an obstacle avoidance neural network

Ninja Cat Laser Tower github.com/willgreenfield

Feb 2019

- Arduino-based laser tower to train cats to be ninjas

Team America Rocketry Challenge

Nov 2018

- Coached and mentored a nationally qualifying team in the aerodynamic analysis of high-power model rockets against weight, stress, fuel, cost, material, altitude, and flight-time constraints

4-Bit CPU

Mar 2018

- IC design of a 16-bit CPU that can compare two numbers and perform any fixed-point number manipulation with memory storage and digital display output

Six Directional Traffic Intersection

Oct 2017

- 1st place in most time-efficient and cost-effective design of a conceptual 6-directional traffic intersection modeled with LEDs and an Arduino micro controller

TECHNICAL SKILLS

- Proficient in Xilinx ISE, Altium Designer, MATLAB, Mathematica, Fusion CAD, C, C++, Java, Python, Linux, AWS
- Experienced in sensor integration, rapid prototyping, PCB design, energy optimization, reverse engineering, circuit analysis, soldering, machine learning, full stack development, manufacturing cost analysis, Git Repositories
- Extensive machine shop, woodshop, welding, and electronics repair experience and certifications

INTERESTS

Energy sustainability, transportation modernization, AI integration, environmentalism, space exploration and habitability, 3D printing, hobbyist IOT projects, Geocaching