Grayson Moyer

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EDUCATION

Carnegie Mellon University • Pittsburgh, PA **Expected: May 2022**
B.S. in Electrical and Computer Engineering, additional major in Robotics

Cumulative QPA: 4.0 / 4.0
Highlighted Courses: Human Robot Interaction • Intro to Robotics • Computer Systems • Concepts of Math • Structure & Design of Digital Systems • Entrepreneurship • Manual Machining • Laser Cutting & Engraving
Fall 2020 Coursework: Robot Kinematics & Dynamics • Computer Vision • Signals • Electronic Devices & Analog Circuits

WORK EXPERIENCE

Service Robotics Group, University of Lübeck, Germany • Machine Learning Intern Summer 2020 – Present
- Developing NN model for vehicles to predict the field of view for pedestrians and cyclists
- Leveraging the CARLA autonomous vehicle simulator and TensorFlow

XRDS Systems • Electromechanical Engineer Spring – Summer 2020
- Invented expandable foot to fit shoe sizes 7-13 with a machined skeleton and mechanism, and a 3D-printed outer shell
- Installed entire electrical system for industrial dual-axis slip-testing machine
- Researched, tested, and implemented wireless IMU device for measuring the precise tilt of a shoe during trials
- Designed DIN-rail mountable enclosures for Arduino circuit, peripheral sensors, and other electronics equipment

GE Transportation • Electronics Integration Engineering Intern Summer 2019
- Designed wiring panel to retrofit a new processing unit in 1000s of locomotives across the U.S.
- Fixed department's wire database tool to identify mistakes in BOMs and duplicated purchase orders
- Served as Chair of Intern Community Service Committee coordinating 250+ manhours of local volunteering

Biorobotics Lab, Carnegie Mellon University • Research Assistant Fall 2018 – Fall 2019
- Explored tendon-driven mechanisms and developed a modular under-actuated finger for grasping recycled bottles
- Fabricated PCBs and electrical devices to support lab projects including a tactile force sensor and 6-feet-tall hexapod

SKILLS & INTERESTS

Software: SolidWorks • Fusion360 • Unity • PSoC Creator • Quartus • CARLA • Android Studio • MS Office • G-Suite
Programming: C • C++ • C# • Java • Python • MATLAB • HTML • System Verilog
Fabrication: CNC-routing • 3D printing • Laser Cutting • Manual Milling • Woodworking • PCB fab
Athletics: Basketball (CMU Club team) • Soccer • Biking • Hiking

ACTIVITIES & LEADERSHIP

HKN Sigma Chapter (ECE and IEEE Honor Society) • Vice President Spring 2020 – Present
Carnegie Mellon Solar Racing • Design Lead (Optimization sub-team) Fall 2018 – Present
Build18 Hardware Hackathon • uART: interactive art with DDR mat, projector, and too many servos Spring 2020
Technical Opportunities Conference • Corporate Relations Chair, Volunteer Fall 2019
Real World Engineering Program • Networked with Boston and Silicon Valley tech companies Spring 2019
Carnegie Mellon Rocket Command • Outreach Coordinator, Club Member (Payload sub-team) 2018 – 2019
HackCMU 2018 • Synaps: phone app that helps users connect with people they bump into Fall 2018
Outdoor Odyssey Camp for At-Risk Youth • Mentor, Junior Counselor Summer 2016, 2017

AWARDS & HONORS

Innovation Scholar, Swartz Center for Entrepreneurship Spring 2020 – Present
College of Engineering Dean's List 2018 – Present
Mousetrap Car Challenge Champions (Intro to MechE course) 2019
National Merit Scholarship Finalist 2018
Johnstown Rotary Club, Solute to Area Scholarship 2018
Challenge Program STEM Award 2017, 2018