

Kevin K. Hewson

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Recent Colorado State University mechanical engineering graduate looking for an entry-level position to transition from excelling educationally to excelling in practice.

Key Skills and Knowledge Areas

- Excellent analytical problem-solving skills and the ability to learn quickly when given new tasks.
- Self-motivated with strong teamwork and leadership skills. Collaborates alongside team members to problem solve and accomplish goals.
- Solid coding and modeling experience. Data analysis and problem-solving with MATLAB and Python. Creating accurate solid models using SolidWorks.

Education

Bachelor of Science Mechanical Engineering
Colorado State University, Fort Collins, CO

Graduated May 2020
GPA: 3.6/4.0

Completed Courses in Major:

- Algorithms in Scientific Computing, Heat and Mass Transfer, Mechatronics, Fluid Mechanics, Thermodynamics, Machine Design, Engineering Design, Combustion, Dynamics of Machines, Control Systems, Energy Engineering, Engineering Analysis, Engineering Materials, Manufacturing Processes, Statics, Dynamics.

Engineering Projects

Selected Engineering Design Projects

- **Advanced Energy Smart Manifold senior design project:**
 - Designed a sensor interface and housing to monitor the fluid properties of Advanced Energy's water-cooled power sources to increase reliability and facilitate control.
 - Created design with minimal pressure loss that can measure temperature, pressure, flow rate, and humidity at the power supply inlet and outlets while simultaneously meeting cost and size constraints.
 - Used SolidWorks to create models of prototypes.
 - Developed creative ways to monitor flow rate that is difficult to measure in such small spaces.
 - Adapted to customer budget and time constraints.
 - Extensively tested prototypes to analyze problems and improve design functionality.
- **Designed an autonomous vehicle to move around a track with an intersection while competing against another vehicle on the same track:**
 - Used the design process to develop, test, and improve a product based on customer requirements.
 - Fabricated the vehicle using recycled machine parts and manufactured-from-scrap metal parts.
 - Improved design reliability and performance following prototype testing.
 - Demonstrated ability to work well with a five-member team, problem solve, and meet objectives.
- **Mechatronics project, Remote Room Cleaning Robot:**
 - Designed, budgeted, and manufactured a robot to remotely clean a room.
 - Used Raspberry Pi and PICs to program and control the robot.
 - Tested designs to discover and analyze problems and improve overall functionality.

Computer Skills

- Excels in MATLAB and Simulink
- Strong experience with PTC Creo (Pro/Engineer) and SolidWorks CAD software.
- ANSYS Workbench for FEA and CFD. ANSYS CHEMKIN for chemical kinetics.
- Proficient in Python including NumPy, Scikit learn, Matplotlib, and other python libraries.
 - Knowledge of machine learning. Experience using Python for coding regression and neural network algorithms, data sorting and analysis.
- Proficient in Microsoft office products and Linux operating systems.
- Familiar with LabView.

Experience

- CSU Engineering Manufacturing Education Center (EMEC) Fall 2017
 - Experience manufacturing using lathes, mills, and Computer Numerical Control (CNC) machines, etc.
 - Developed knowledge of manufacturing processes using raw materials to create parts, including treatments (i.e., tempering, annealing) to improve material characteristics, apply appropriate finishing, and assembly.
 - Manufactured a clock, scribe, and trivet from given engineering drawings using manufacturing processes.
- Research Assistant for Professor Yoko Takematsu, Yamaguchi University, Yamaguchi, Japan Aug 2014
 - Assisted in collecting research samples for entomological studies of termites in Okinawa, Japan.
 - Communicated with research team in Japanese.

Work Experience

- Hospital Automotive (auto shop and full-service gas station), Fort Collins, CO Aug 2018-Aug 2019
 - Assisted in the diagnosis and repair of vehicles.
 - Demonstrated ability to work independently given instructions.
 - Provided customer service exceeding customers' expectations.

Accomplishments

- Member, National Eagle Scout Association.
- Dean's List scholar; 3 semesters (FA 2016, FA 2019, SP 2020)