

Judy V. Hutson

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Education

- Centennial High School, Boise, ID- High School Diploma
Graduation Date: May 31st, 2014 **Cumulative GPA: 4.1**
- Bachelor of Science in Electrical Engineering; Minor in Japanese
University of Oklahoma, Norman, OK
Expected Graduation Date: May 11th, 2019 **Cumulative GPA: 3.9**

Relevant coursework:

Electromagnetic Fields	Calculus I-III
Energy Conversion	Physics for Engineers I-II
Digital Signals and Filtering	Modern Physics
Circuits I-II	Introduction to Ordinary Differential Equations
Signals and Systems	Linear Algebra
Introductory Electronics	Introduction to Java
Electronics Laboratory	Introduction to C
Digital Design	Dynamics
Microprocessor System Design	Statics
Applied Engineering Statistics	Metal Manufacturing Techniques (Shop)

Involvement

- Research (Spring 2018)- Automatic manipulation of ferrofluid for antenna tuning
 - Integration and control of motors used for frequency selection of a tunable antenna
 - Selection of motors; design, modeling and construction of connector components; modification of LabVIEW program to achieve simultaneous motion; testing using network analyzer scattering parameters to determine center frequency and transmission strength in various configurations
- Sooner Rover Team
 - Multidisciplinary competition involving design and construction of a mock interplanetary rover
- Alpha Sigma Kappa
 - Retreat Chair (Spring 2018)
 - Organization of mandatory overnight retreat, including lodging, food, and activities
- Mercury Robotics Competition 2016
 - Mechanical sub-team lead
 - Worked in collaborative effort to design controlled rover-like robot capable of navigating obstacle course
 - General design and planning, modeling of individual components, some prototyping and construction
- ASEE Robotics Competition 2015, 2016
 - General design and planning, selection of efficient path through course
- Study abroad- Yamaguchi, Japan, 2017

Work Experience

Intern, NASA Johnson Space Center, 6/18-8/18

Division: EV8 (Engineering- Avionics- Communications)

Telemetry data processing for Orion Ascent Abort 2 test

- Compilation of data from multiple receivers into one file
- Use of frame markers, time stamps and checksums to compare data and determine accuracy
- Use of multiple small computers interconnected using socket programming to create a scalable cluster capable of processing an arbitrary number and length of files

Lab Assistant, Kiss Institute for Practical Robotics, 5/16-1/17

- Assembly and testing of microprocessors intended for educational use
- Manufacture of basic robotics components
- Safe repair and disposal of potentially hazardous materials, particularly lithium polymer batteries

Skills

- Experience with MATLAB, Multisim, Eagle, and LabVIEW
- C and C++, including socket programming
- Some experience with Touchstone PNA Vector Network Analyzer
- Some experience with computer-aided design, using programs such as Inventor and SolidWorks
- Soldering
- Linux operating systems and console commands
- Basic knowledge of Java and HTML
- Competent in Japanese

Honors and Scholarships

- Eta Kappa Nu, Electrical and Computer Engineering honors society
- Dean's List, Fall 2014 - Fall 2017
- University of Oklahoma National Merit Scholarship
- Tomorrow's Engineer Scholarship
- Ernest Reynolds Scholarship

Volunteer Work

Norman Animal Welfare, 4/18-present (3-6 hours/week)

- Exercise and mental stimulation of shelter dogs
- Working with previously abused animals to build trust and good behavior
- Bathing and grooming
- Assistance of visitors in pet selection based upon animal personality and needs