

Devesh Mohan

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US Citizen

Work Experience

SmartAg, Ames, IA | Electrical Automation Intern

- Led and developed in-house automated tester device for controls board by designing electrical schematic (MultiSim, EAGLE), prototyping, and programming with Arduino
- Programmed and field tested PID controls for autonomous tractor motion
- Analyzed and redesigned wiring diagrams across all product lines to improve efficiency
- Mounting brackets, drilling holes, and installing autonomous hardware on tractor and combines
- Gained independence in technician activities such as soldering and crimping, connector assembly, building automotive wire harnesses, board testing, and debugging with multimeter

Summer 2018,
Summer 2017

Iowa State University, Ames, IA | Teaching Assistant (Dr. Gary Tuttle)

- Conducted weekly lab sessions for Electrical Circuits (EE 201) covering circuit building, testing, and PSpice analysis for 30+ students

Spring 2016

GIANT Internship at Grenoble Institute of Technology | Undergraduate Research Intern

- Conducted study titled, “DNA Grafting on Nanowires,” to quantify DNA deposition on electrically conductive nanowires used for biosensor devices in disease detection
- Oral presentation at ISU Undergraduate Research Symposium 2016

Summer 2015

The Boeing Company, Huntington Beach, CA | IT Intern

- Created and reviewed engineering specification docs for network access protocols in data centers
- Ran monthly RIO (Risk, Issue, and Opportunity) Board meeting
- Facilitated a team of interns in proof-of-concept of tablet/wearable use at airline crash sites

Summer 2014

Projects/Research

Class D Amplifier for Integrated Electronics Class (EE 330)

Spring 2018

- Built transistor layout and simulated in Cadence, wrote tests in Verilog

Independent Sustainability Research Project

Spring 2017

- Conducted study, “Addressing food shortages through vertical farming and efficient microgrid design”
- NSF Grantee for poster presentation at UPitt Mascaro Sustainable Eng Conference 2017
- Poster presentation at National Conference on Undergrad Research (NCUR) 2017, Memphis

Laboratory of Integrated Optical Sensors, ISU | Research Assistant (Dr Meng Lu)

Fall 2016

- Conducted study, “Water Quality Study for Microcystin Detection using Colorimetric Gold Nanoparticles,”
- Oral presentation at National Conf on Undergrad Research (NCUR) 2017, Memphis
- HackUTA 2017 - MS Kinect security camera (motion and facial detection) built in Python and OpenCV
- Senior Design 2017 - Washing machine ON/OFF state, built protoboard and wrote Arduino code
- Amazon Alexa Skill Development - University Challenge Diploma, 2 skills, 100+ downloads each

Education

Iowa State University, Ames, Iowa

Fall 2013 - Fall 2018

- B.S. Electrical Engineering
- EE GPA: 2.70/4.00

Grenoble Institute of Technology, Grenoble, France

Summer 2015

- Nanotechnology Program

Distinctions

- “Academic Achievement Award” 2013-2018
- “Best Design” and “Best Use of Microsoft Azure for Good” At HackRice 2017
- “Best Agricultural Venture” at ISU Innovation Pitch Competition 2017

Technical Skills

Programming Languages: Python, Java, C++, Matlab, OpenCV, ROS; Web Dev - HTML5, CSS, Javascript

Hardware: Power Supplies, Oscilloscope, Function Generator, Signal Processing, Microcontrollers

Software: PSpice, MultiSim, Cadence Virtuoso, EAGLE, Automated Testbench in NI Signal Express, Verilog