# KATHERINE PEREZ

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#### **EDUCATION**

# University of Houston · Cullen College of Engineering

Houston, TX · May 2017

Pursuing B.S. in Electrical Engineering · Cumulative GPA: 3.304 · Major GPA: 3.500

Concentration: Computers and Embedded Systems

# WORK EXPERIENCE

## UH Electrical and Computer Engineering Department · Senior Design Lab Teaching Assistant

Houston, TX · August 2016 – Present

Omron Robotics Laboratory and Senior Capstone Laboratory

- Create demonstrations for a programmable logic controller
- Assist professors with the integration of PLCs and ladder logic in the curriculum

#### **Intel Corporation** · *Solid-State Drive Validation Intern*

Non-Volatile Memory Solutions Group · Product Validation Leads

• Owner of automated SSD validation test suite – PCIe protocol/host level

Increased testing time efficiency by 100%

Folsom, CA · June – August 2015

· May – August 2016

Fry's Electronics · Service Technician, Customer Service Associate

Houston, TX · July – November 2014

Houston, TX · Dec. 2013 - May 2014

- Troubleshoot hardware, software and networking issues on personal computers and electronic devices
- Assembled custom desktop computers

## **UH Electrical and Computer Engineering Department** · Research Assistant

Electrochemical Nanofabrication and Nanomaterial Synthesis Group

• Assisted in researching "Deposition of Magnetic Thin Films (Cobalt/Iron/Nickel);

Alloy Stress Control on Electrodeposited CoFe Films"

• Managed and recorded data driven results using DAQ in a laboratory environment

## TECHNICAL SKILLS

Programming Languages: C, C++, Python, Java, Verilog, SQL, Web (HTML, CSS, JavaScript/jQuery)

Design: OrCad PSpice, LabView, Autodesk Inventor, Adobe Photoshop, Sony Vegas

Laboratory Equipment: Oscilloscope, Digital Multimeter, Function Generator, Soldering Iron

Operating Systems: Linux (Ubuntu, BackTrack); Windows (98, 2000, XP, Vista, Windows 7, Windows 8); UNIX

Software: MS Office (Word, Excel, Outlook, Power Point); LibreOffice (Write, Calc, Draw, Impress)

Hardware: Raspberry Pi, Programmable Logic Controllers, Computer Components

#### **PROJECTS**

- Discrete Static Random Access Memory Electronics Design Team Project
  - o Designed a circuit using transistor-transistor logic to represent an SRAM cell
  - o Modeled circuit on PSpice and built circuit on printed circuit board
  - o Worked with a group of four to implement discrete memory bits to display information on an interactive display of LEDs
- 3pi Maze Solving Robot University of Houston IEEE Robotics Competition
  - o Programmed Pololu's 3pi Robot with C to solve a maze autonomously in the least amount of time
  - o Winner of the annual UH IEEE Robotics Student Competition
  - Bluetooth Device Presence Detection University of Houston CodeRed Hackathon
  - o Used a Bluetooth sensor to acquire data from Bluetooth signals sent by mobile phones
  - o Used IBM's Presence Insights technology to translate Bluetooth signals to a specific location on a map
  - o Winner of BlueChasm Company Challenge

# **MEMBERSHIPS**

Tau Beta Pi (Engineering Honor Society)

Institute of Electrical and Electronics Engineers - Executive Board Officer: Resource Chair

Robotics Officer: Webmaster

Spring 2016 – Present Fall 2014 – Present

Fall 2013 – Fall 2014

American Institute of Chemical Engineers - Officer: Webmaster

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