

# VANIKA HANS

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## EDUCATION

**Bachelor of Science in Electrical and Computer Engineering**  
**Minor in Computer Science, Leadership Certificate**

University of Colorado Boulder  
Graduation: May 2018

**Relevant Coursework:** Digital Logic, Computer Organization, Embedded Systems, Programming Digital Systems, Circuits I & II, Electronics Design Lab, Linear Systems, Microelectronics, Operating Systems, Control Systems, Algorithms, Data Structures, Digital Signal Processing, Design of Implantable Devices

**Awards/Scholarships:** CU Esteemed Scholar (James H. Baker Scholarship), Dean's List Fall 2016, BOLD (Broadening Opportunities through Learning and Diversity) Scholar, Engineering Honors Program, Engineering Leadership Program

## TECHNICAL SKILLS

**Programming Languages:** C, C++, Assembly, Verilog, SystemVerilog, UNIX, Vim, MATLAB, UPF, HTM/CSS, Perl

**Software/IDEs:** CodeComposer Studio, Cudasip, LPCXpresso, LT SPICE, DVE, Verdi, Simulink

**Hardware:** TI MSP432P401R, EDUMKII Educational Booster Pack, Altera DE0 Board, LPC1115

**General:** MIPS and RISC-V Architecture, Soldering, Lab Tools, Teamwork, Communication, Leadership

## EXPERIENCE

**Incoming IP Design Engineer at Intel Corporation** (Hillsboro, OR)

Starting July 2018

**Logic and Validation Intern at Intel Corporation** (Fort Collins Design Center, CO)

May – August 2017

- Validated Isolation Strategies in UPF using different tests in DVE and Verdi
- Verified RTL functionality using X-Propagation

**Knowledge Foundry Tutor** (CU Department of Electrical, Computer & Energy Engineering)

January – May 2017

- Tutored students taking Circuits 1, Linear Systems, Microelectronics, Digital Logic, and Embedded Systems.

**IT Intern at Hunter Douglas** (Broomfield, CO)

May – December 2016

- Researched, documented, and presented programmatic solutions for data synchronization between dealer and employee databases

**Junior Developer at DragonDev** (Boulder, CO)

March – May 2016

- Helped research, design, and develop business applications; maintained company website using HTML

## PROJECTS

**Senior Capstone Project: Dubai Cane for the Visually Impaired**

August 2017 – Present

- Created and designed smart blind cane. Device features ultrasonic sensors and vibration motors for obstacle avoidance, a speaker for communication, and an application linked with the cane to send an emergency text on a button push.

**Application Specific Instruction Set Processors (ASIPS) Independent Study**

August – December 2017

- Optimized a RISC-V CPU core's Instruction Set Architecture, Cycle Accurate Model, and cache organization for real time embedded radio-spectrometry processing utilizing Cudasip.

**Embedded Systems Project: Interactive Gaming Platform on Microcontroller**

October – December 2016

- Created game on MSP432P401R and EDUMKII Booster Pack using UART, button, timer, and joystick interrupts, and LCD Display

**Verilog Digital Logic Project: 7-Segment Display on DE0 Board**

March – April 2016

- Designed Ternary Adder on 7-segment display. Featured add/subtract mode, and a carry-lookahead/ripple-carry adder

## LEADERSHIP

**VP, Director of Outreach, and Society Representative of Society of Women Engineers (SWE)**

August 2014 – Present

- Organized networking nights, set up engineering presentations, panels, events, and meetings to encourage students K-12 to STEM, and represented CU SWE at both the collegiate and national level; attended conferences in Nashville, Philadelphia, Austin, Oklahoma City, and Boulder.

**Treasurer of Electrical Engineering Student Society (EESS), Organized Lab Tools Workshop**

July 2016 - Present

- Organized social events, and taught students to use oscilloscopes, multimeters, waveform generators, and power supplies

## LANGUAGES + INTERESTS

English (Native) • Hindi (Native) • Spanish (Proficient) • Punjabi (Beginner)

Teaching, learning, and performing Dance (Hip-Hop, Bharatanatyam, Bollywood) • Hiking • Cooking • STEM Outreach

## REFERENCES

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**Chris Smithhisler:** chris.smithhisler@intel.com; 970-207-7091  
Intel Corporation, Engineering Manager

**George Allaman:** George.allaman@hunterdouglas.com; 303-876-3177  
Hunter Douglas, Mentor

**Alex Fosdick:** alexander.fosdick@colorado.edu; 303-492-7327  
University of Colorado Boulder, Instructor / Mentor

*Additional References Available Upon Request*