# Cole Terrell

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## Education

**Master of Business Administration, University of Kentucky** Expected Graduation: May 2021
Bachelor of Science in Computer Engineering, University of Kentucky Cumulative GPA: 4.0

## Experience

**Cypress Semiconductor Corporation** **August 2018 – December 2019**
*Full-Time Cooperative Education Program*

- Developed a strong foundational knowledge of VLSI industry-standard design and physical verification techniques.
    - Applied mastery of these concepts by developing a training module for new hires that was distributed internationally.
- Designed a partially automated process in Ruby and SKILL for performing large-scale quality assurance tasks**.** These improvements saved weeks of working time for this task.
- Crafted visually appealing and descriptive documentation that was used as reference material by department managers in meetings with international colleagues. The templates I created became standard protocol within the department.

**Undergraduate Research Fellowship** **January 2019 – August 2019**
*Low-Power Computation and Hardware Security*

- Leveraged VLSI industry-standard CAD tools to design and simulate transistor-level circuits with the goal of developing novel logic families. Designs emphasized low power and area overhead as well as resilience to hardware cyber-attacks.
- Directed small groups to rigorously test designs and present research results to industry professionals.
- Developed and maintained scripts to automate schematic-based simulations using Ruby, BASH scripting, and SKILL.

## Research Works

**Approximate Adder Circuits Using Clocked CMOS Adiabatic Logic (CCAL) for IoT Applications** **January 2020**

- Presented at the IEEE Conference on Consumer Electronics (ICCE), Las Vegas.
    - Proposes a novel logic family that combines cutting-edge adiabatic and approximate computing techniques for considerable savings in both power and area metrics for arithmetic circuits.
- Recipient of the University of Kentucky Electrical and Computer Engineering Undergraduate Research Fellowship.

## Relevant Skills

**Hardware**

- Proficient in writing and simulating hardware specifications using Verilog; experience includes testbench design and coverage analysis.
- Coursework designing embedded systems that manipulate physical objects, produce audio/visual cues, and respond to user input (C and Arduino).

**Software**

- Writing readable and maintainable scripts for workflow automation using Ruby, SKILL, and Python.
- Foundational understanding of the software toolchain including high-level programming, compilation, assembly, and instruction set architecture design.