SACHIN KASYAP PARSA

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EDUCATION

University of Illinois at Urbana-Champaign   DEC 2019
Bachelor of Science in Electrical Engineering

RELEVANT COURSEWORK

· Digital Integrated Circuit Design (ECE 482)
· Integrated Circuit Fabrication (ECE 444)
· Semiconductor Electronics (ECE 340)

· Digital Systems Lab (ECE 385)
· Digital Signal Processing (ECE 310)
· Electronic Circuits (ECE 342)

PROJECTS

Wafer Fabrication, *IC Fabrication Class Project*   JUN 2019 – AUG 2019
· Utilized fabrication techniques like oxidation, photolithography, etching and metallization to produce a working silicon wafer

· Performed all processes with industry standard safety protocols in a cleanroom environment

· Tested devices using a four-point probe and analyzed the data using IC-CAP

Automated Specialized Coffee Machine, *Senior Design Project*   JAN 2019 - MAY 2019
· Designed the PCB using Eagle CAD to automate the process of making an AeroPress coffee

· Tested and prototyped the circuitry used to control the actuator, and solenoid to apply pressure on to the AeroPress coffee

· Designed the supporting circuitry for the temperature sensor and relay module to reach user-defined temperature

Hamming Code Encoder, *Digital IC design Class Project*   AUG 2019 - DEC 2019
· Designed the schematics for the encoder logic, register, PISO with a team of four

· Tested the encoder on HSPICE and used cadence for layout purposes

PROFESSIONAL EXPERIENCE

Quinnox Inc.   Chicago, IL
Data Analytics Intern   JUN 2017 - AUG 2017
· Improved organization of ticketing systems by transferring statistical parameters from Excel to various databases like MongoDB, PostgreSQL, MySQL using Agile methodology

· Increased accessibility of databases by integrating with a cloud server using XML and JSON

· Provided support to bring the KPM (Key Performance Metric) dashboard to the market using an ESB/ETL tool called WSO2 in a LINUX environment

WYSE Seminar   Champaign, IL
Teaching Assistant   JUN 2018 - AUG 2018
· Collaborated with the course director to design an FM radio PCB using Eagle CAD to illustrate the inner workings of communication devices

· Assisted over 30 students with measurement devices like the oscilloscopes and logic analyzers. Helped improve their skills in soldering and circuit debugging

University Residence Hall   Urbana, IL
Resident Adviser   JAN 2017 - MAY 2018
· Educated 55 residents about campus resources for academic success and mental wellness

· Resolved high-pressure situations like alcohol abuse, domestic violence, and suicide ideation

SKILLS

Programming Languages: C, C++, Python, HTML, XML, JSON, MATLAB **Operating Systems**: Linux, UNIX, Windows
Tools: LTspice, Eagle CAD, IC-CAP, HSPICE, Cadence, Altera Quartus Arduino, GIT, SVN, System Verilog, Mathematica