Mitalee Bharadwaj

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 github.com/mitaleeb

Education

University of Illinois at Urbana-Champaign
B.S. Computer Engineering
Expected Graduation: May 2020
South Brunswick High School
Graduated: June 2016

Relevant Coursework

Introduction to Electronics • Digital Logic Design • Analog Signal Processing • Systems Programming • Data Structures • Microelectronics • Digital Systems Lab • Operating Systems Design • Logic Synthesis • Digital IC Design • Semiconductor Devices.

Skills

Programming Languages
 C, C++, SystemVerilog, LC3 Assembly, x86 Assembly, Python
Web Development
 HTML, CSS, JavaScript
Other
 Quartus, LTSpice, git, Arduino, FPGA development, ModelSim, Embedded Software, I2C/SPI, Linux/OS kernel, Unity

Personal Project

</>Voice-controlled coffee machine
A basic coffee machine that integrates an ARM processor to brew coffee through voice commands or on a web application.
</>FPGA Audio Effect Generator: ECE 385 Final Project
From a given audio input, Verilog/C code creates various different DSP effects on the signal before outputting it again through the headphone jack on the DE2-115 board, and displays the audio channels on VGA monitor.

Work Experience

Bose • Embedded Software Engineering Intern
Framingham, MA
May 2019 – August 2019
 Developed firmware for in-ear headphones development boards and charging case.

 Debugged issues related to to USB detection, USB enumeration, and charger IC configuration within the charging case firmware.

 Provided system support for SQ&A, manufacturing, and hardware development teams.

 Worked on a product development team that interacts with BLE and USB device drivers, DSP, and hardware design.

Bose • Technical Summer Intern
Framingham, MA
May 2018 – December 2018
 Developed prototyping environment for low power embedded camera integration in Bose products.

 Designed 3D audio spatialization VR experience in Unity to compare several audio SDKs.

 Prototyped an AR headset with a specialized audio solution, and eye and hand tracking.

Sandia National Laboratories • Applied Research Intern
Applied Research Institute (ARI), Champaign, IL
Jun 2017 – Feb 2018
 Built a web-based data visualization application to convert various data file formats including: JSON, Google Protocol Buffers, HDF5.

Campus Activities

ECE Student Advancement Committee (ECESAC)
Fall 2017 – Present
President on the student board for the ECE department to plan events and represent the interest and concerns of the students.
Alpha Omega Epsilon
Fall 2017 – Present
Member of professional and social sorority composed of female engineering and technical science students.
Daily Byte
Spring 2018 – Present
Barista & cashier at a local coffee shop.