

Dhrumil Chavda

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EDUCATION

California Baptist University – Riverside, CA

Master of science in **Electrical and Computer Engineering**

August 2020

SAL Institute of Technology and Engineering Research - Ahmedabad, Gujarat

Bachelor of engineering in **Electronics & Communication Engineering**

June 2017

Relevant Coursework: Real-time Digital Signal Processing, Advance Digital System Design using FPGAs, Mobile Robotics, Radio Frequency Engineering, Advance Topics in RF Engineering, Digital Signals and Systems.

Additional Coursework: Boot Camp: SystemVerilog, Boot Camp: UVM, Jump Start - ASIC Verification.

SKILLS

Languages: Verilog, SystemVerilog (Object Oriented Programming), UVM, C, C++, Python, Perl, MATLAB, Linux, Gate-level/RTL Coding.

Software: uVision Keil IDE, Xilinx Vivado, Xilinx Vivado SDK, SOLIDWORKS, COMSOL, STM Cube MX, Altium, Eagle, Simulink, Octave, Microsoft Office.

Hardware: Digilent Nexus 4 Development Board (Xilinx Artix-7), ST Microcontroller (STM4), Soldering, Cypress Development board, Avnet Minized board (Zynq SoC), Troubleshooting, Debugging, Oscilloscope, Spectrum Analyzer.

PROJECTS

FPro FPGA System-on-Chip (SoC) Designs

December 2019

- Design a SoC to perform complex task using hardware software co-design approach. Using System Verilog, schematic is implemented to toggle 4 LEDs on specific time allocated using Vivado and Vivado SDK. Design uses SPI protocol to communicate between 7 segment and keyboard to display 0-9 digits.

Real-time DTMF System Design

April 2019

- Design real-time DTMF system using the ADC to DAC converter implemented on Cypress FM4 board- ARM Cortex M4 chip.
- Implement Band pass filter to select allocated frequency of each dialed alphanumerical input using python language and add to C language code.

License based ignition system using RFID

May 2017

- Develop a system which allows person to operate vehicle using allocated RFID tag using Arm processor implementing RFID tag reader and LCD screen to show authentication process. Software such as uVision Keil and C language is applied to implement the design.

EXPERIENCE

California Baptist University, Riverside, California

Jan 2019 – May 2020

Student Worker at Conference and Events

- Manage setup and teardown work with team members for events on University Campus.
- Assist other team member with audio-visual equipment on event setup tasks.

Shakti Electronics, Ahmedabad, Gujarat

July 2017- July 2018

Electronic Engineer

- Conduct ARM Cortex-M4 based project to develop system for User interface in car-washing stations. Use ST Cube MX IDE and uVision Keil IDE to program the STM4 32-bit series development board for project implementation.

ACTIVITIES/INTERESTS

IEEE Student Club Member

- Learn SOLIDWORKS and Altium software as part of tutorials conducted by IEEE club.