IRFAN PUNEKAR

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OBJECTIVE

To apply Computer Engineering principles to research towards a Master of Science thesis.

EDUCATION

ROCHESTER INSTITUTE OF TECHNOLOGY, ROCHESTER, NY
B.S./M.S., Computer Engineering, expected May 2021
GPA: 3.64 / 4.00
Dean's List Honors: Fall 2016, Spring 2017, Fall 2017, Spring 2018
Relevant Courses:

- Assembly Language Prog. with Lab
- Intro to Software Engineering
- Computer Organization, Architecture
- Computer Science I, II with Lab
- Digital System Design I, II with Lab
- Circuit Analysis I, II with Lab
- Electronics I with Lab
- Applied Programming in C with Lab
- Interface & Digital Electronics with Lab
- Data & Communication Networks

SKILLS

PROGRAMMING: C, C++, C#, VHDL, Verilog, SystemVerilog, Assembly (ARM, MIPS), Java, Python
HARDWARE: Xilinx MicroBlaze, QSFP+, SFP, VCU108 Evaluation Kit, Nexys 3 Board, NXP FRDM (KL46Z, K64F), Raspberry Pi, Arduino, Breadboard, Electrical Lab Equipment
SOFTWARE: GNU Bash, Xilinx (ISE, Vivado, SDK), ModelSim, Keil µVision 5, OrCAD (CIS, PSPICE), EAGLE (Schematic, Layout), Altera Quartus, Git, Maven, Xamarin
WORLD LANGUAGES: Fluent Urdu, Advanced Spanish, Beginner Arabic, Beginner ASL

EXPERIENCE

COMPUTER ENGINEERING CO-OP, PRECISION OPTICAL TRANSCEIVERS, SUMMER 2019

- Transferred existing embedded C code from SFP+ to QSFP+ memory format
- Communicated with vendors, researched existing functionality, and documented changes

COMPUTER ENGINEERING CO-OP, PRECISION OPTICAL TRANSCEIVERS, FALL 2018 – SPRING 2019

- Implemented a VCU108-based transceiver test system in support of AIM Photonics
- Designed and implemented the hardware framework necessary to interact with and characterize the performance of a custom QSFP-based photonic device
- Wrote embedded C code that controlled the system and its peripherals and interacted with a host PC
- Spent time in the ITAR-controlled Rochester Imaging Detector Laboratory in RIT's Center for Detectors
- Managed a team of students by delegating tasks, setting goals, and documenting weekly progress

TEACHING ASSISTANT, ASSEMBLY LANGUAGE PROGRAMMING, RIT, SPRING 2018

- Assisted students in weekly lab sessions to write and debug embedded ARM Assembly code

LABS & PROJECTS

- In an Agile/Scrum team of four, designed and implemented an online checkers game in Java
- Implemented an autonomous model car for the NXP Freescale Cup
- Designed and implemented a heartrate monitor using an OPB-745 opto-isolator
- Designed and implemented an ARM Assembly game in which users identify pseudo-randomly generated LED patterns on a KL46 board
- Designed, implemented, and packaged a JavaFX calculator for pre-, post-, and infix notation math
- Designed and implemented a Python program to sort and view a database of consumer complaints

PERSONAL PROJECTS

- Disassembled an electric guitar to repair cosmetic damage and replace all electronic parts
- Competed in BrickHack V with three other students to write a social media app for iOS and Android
- Implemented a remote-controlled video car that used a Raspberry Pi web server to accept input from and stream video to any compatible internet-connected device
- Designed and implemented a robot that used LEGO NXT and ROBOTC to navigate a maze

ACTIVITIES

Honors Program, Brick City Boppers, Weightlifting, Running, Photography, Electric & Acoustic Guitar