TEJAS HARITH

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OBJECTIVE

Prospective PhD student interested in exploring architectures for energy-conscious compute. I have strong foundations in digital systems and want to develop expertise in analog-digital interface and novel architectures such as neuromorphic computation.

EDUCATION

BSE, Computer Engineering, Summa Cum Laude   *April 2020*
University of Michigan, Ann Arbor, MI

- GPA: 3.91; Dean's List, University Honors, James B. Angell Scholar
- Relevant Coursework: Advanced Embedded Systems, Computer Architecture, Operating Systems, Linear Space Matrix Theory, Computer Networks, Intro to Machine Learning

WORK EXPERIENCE

Sambanova Systems, Palo Alto, CA   *May 2020- Present*
Senior Hardware Engineer

- Implemented segments of our machine learning data flow chip on FPGA for rapid prototype of pre-silicon architecture
- Leveraged PCIE, and Ethernet protocols to design a one-of-a-kind data flow network link over FPGAs, enabling scalable model parallel servers
- Developed in our domain specific language with a deep understanding of our compiler, driver and chip stack to rigorously test our R&D flagship product in a small team of 4 engineers

Interactive Sensing and Computing Lab, Ann Arbor, MI   *May 2019- May 2020*
Undergraduate Researcher

- Prototyped applications for ubiquitous, low-power displays using spray-on photochromic inks to extend interactive surfaces from touchscreens and devices to walls, tables, and fabrics
- Designed BLE connected smartphone case: 4-layer PCB, SOLIDWORKS case, iOS Swift App for activating photochromic ink

University of Michigan CSE Department, Ann Arbor, MI   *Jan 2019- June 2020*
EECS 270 Instructional Aide

- Organized and instructed two 3-hour weekly lab sections on designing, implementing, testing, and debugging digital logic applications on Altera DE2-115 FPGA dev board in Verilog using Quartus
- Prepared lectures and demos preparing undergraduates for future coursework in logic-level design

INTERDISCIPLINARY EXPERIENCE

Strength Augmenting Robotic Exoskeleton Design Team (STARX), Ann Arbor, MI   *Sep 2017- June 2019*
Load Bearing Exoskeleton Project

- Implemented a dynamic hydraulic damper controller based on human gait cycle kinematics in C
- Designed a 2 degree-of-freedom mounting platform for tracking exoskeleton joints' global positions

SKILLS

Computer: C++, C, Python, Matlab (Vanilla, Image Processing, Parallel Toolkit), Microcontrollers (Arduino, ST, ESP, ARM), SystemVerilog, FPGAs (Xilinx, Lattice, Altera), ARMv8 Assembly
Other: Fine Arts, Backpacking, 3D Design, PCB Design, Intermediate Soldering, Basic Machining (Milling)

ACTIVITIES

Benchmark Rock Climbing Member   *Sept 2021 – Present*