Seth Gower

US Citizen

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Seeking Full Time employment for Digital Hardware Design. Starting June 2022.

Work Experience

Herrick Technology Laboratories: DSP Engineering Intern
Germantown, MD
February '21 - Present

- Developed high performance VHDL designs on FPGA based SDRs.
- Development of High Speed Interfaces for SDR applications, including 40GbE.
- Develop applications in a fast paced environment, while meeting deadlines on products for customers.
- Use of Matlab for thorough verification of complex VHDL designs.
- Developed FPGA designs in which multiple, asynchronous clock domains were present.

D3 Engineering: Embedded Software Engineering Intern
Rochester, NY
January - July '20

- Development of Embedded software for Advanced Driver Assistance Systems (ADAS) applications, using Texas Instruments TDA processors. These systems included safety systems, such as Surround View.
- Designed and developed an automated testing suite for a new product. These tests were performed on all new units of this product to ensure functionality.
- Demonstrated ability to productively work in a remote capacity due to the COVID-19 pandemic.

RIT Computer Engineering Department: Teaching Assistant
Rochester, NY
August '18-December '20

- Assisted Professors with running Laboratory sections for various courses.
- Mentored Students, and helped them learn challenging concepts.
- Promptly graded student work, on top of course load.

Education

Rochester Institute of Technology
Rochester, NY
Expected May '22

Bachelor of Science: Computer Engineering, 5 year program
GPA: 3.11 - Dean's List: Spring '19, Fall '20
Relevant Coursework:

- Reconfigurable Computing (CMPE-660): Learned Advanced Synchronous Digital Design concepts targeting a Xilinx Nexys A7 (Previously Nexys 4 DDR) development board.
- Interfacing Digital Electronics (CMPE-460): Used FRDM-K64 ARM board to interface with peripherals, to eventually build and program an autonomous race car.

Skills

- **Languages:** C, VHDL, Matlab, Arm Assembly, Python, LaTeX, Bash, C++, Qt5, Java, Rust
- **Tools:** GNU/Linux tools and environment, Git, KiCad, Altera Quartus Suite, ModelSim, Xilinx Vivado
- **Hardware:** Soldering, Prototyping on breadboard, Hardware design on FPGA, Hardware Debugging
- **Professional Skills:** Public Speaking, Team Management, Ability to Work productively in a remote capacity

Projects

Small Scale Autonomous Race Car
Embedded C
August - December '20

Using a NXP/Freescale FRDM-K64 Embedded Development board, myself and a partner assembled and programmed an autonomous race car to compete in RIT's IDE Cup. Used embedded C to design to interface with a line scan camera to control motors and servos to quickly traverse a randomly designed track.

Pipelined MIPS Processor
VHDL
January - May '19

Created each stage of a MIPS processor, individually tested these stages. The processor was modeled and tested using VHDL and then implemented on to Basys 3 FPGA. The processor was tested by calculating 10 elements of the Fibonacci Sequence.

Organizations

- **Engineering House:** Special Interest House at RIT. Positions Held: Secretary. Active October '17 - May '19
- **Computer Science House:** Special Interest House at RIT. Active August '17 - May '18