Atticus Russell

US Citizen

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Seeking full time employment as a computer engineer, Starting August 2023.

Work Experience

Vanteon Corporation: Electrical Engineering Co-op
Pittsford, NY
Aug. '21 - Dec. '21

- Improved RF loopback testing for Vanteon's SDR platform through automation
  - Overhauled Matlab script for characterization and graphing of loopback test data.
  - Wrote C code controlling SDR test menu system, integrated with Matlab script for automatic data collection.
  - Designed PCB in Altium to speed up switching RF filters during loopback testing.
- Fabricated and assembled display system for customer demonstration.

FloDesign Sonics:
Wilbraham, MA

Electronics Team Intern
Jun. '21 - Aug. '21

- Integrated external API into prototype electronic component inventory system

Research and Development Intern
Jun. '20 - Aug. '20

- Developed system to image ultrasonic standing waves using Schlieren imaging with pulsed laser illumination

Product Development Intern
May '19 - Aug. '19

- Worked on acoustic filtration system for biopharmaceutical applications
  - Used SolidWorks to create parts, assemblies, and drawings
  - Created set of formal work instructions for manufacturing transducers

Research and Development Intern
Jun. '18 - Aug. '18
Jun. '17 - Nov. '17

- Conducted tests of acoustic filtration technology and collected data.
- Designed and assembled custom computer, upgraded older computers.
- Prototyped improvements to product using CAD and 3D printing.
- Presented findings and future goals weekly to a panel of managers and other interns

Education

Rochester Institute of Technology
Rochester, NY
Expected May '23

Bachelor of Science: Computer Engineering
GPA: 3.31 - Dean's List: Spring '22, Spring '20

Skills

- **Languages:** C, Python, VHDL, Matlab, Arm Assembly, LaTeX, Bash, Java
- **Tools:** GNU/Linux environment, ROS2, Git, ModelSim, Xilinx Vivado, Altium, CAD
- **Technical:** Debugging, Troubleshooting, Soldering, Software Development
- **Professional Skills:** Presentations, Agile Software Collaboration

Projects

Small Scale Autonomous Race Car
Embedded C
Aug. - Dec. '22

- Created firmware for small autonomous racing vehicle, controlled by TI MSP432 ARM-based microcontroller.
- Using Line scan camera, wrote PID and state-based control system to quickly navigate a randomly designed track in a timed race.

Pipelined MIPS Processor
VHDL
Jan. - May '22

- Created and tested each stage of a MIPS processor with VHDL
- Combined each stage in the pipeline and simulated using ModelSim
- Tested overall functionality by calculating a portion of the Fibonacci sequence.
- Experimentally found the fastest clock frequency at which the processor could operate.

Organizations

- **Phi Delta Theta:** New York Eta Chapter. Active October '21 - May '23