Kai Arsenault

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Education

Wentworth Institute of Technology | Boston, MA — Expected Apr 2021
Bachelors of Science, Computer Engineering — GPA 3.84
Minor, Computer Science — Dean's List
Member of IEEE-Eta Kappa Nu (IEEE-HKN), the honor society of IEEE

Relevant Coursework
Computer Architecture, Operating Systems, Hardware security, Analog and Digital Circuit Design
Signals and Systems, Data Structures, Algorithms, Computer Networks, Microcontrollers Using C

Related Experience

Defense and Aerospace Software Intern, Teradyne | Boston, MA — Jan - Dec 2020
Majority of work was spent writing and debugging C# in Visual Studio.
Implemented automatic stress test to run daily on VERTA hardware to be used to generate log files and collect data points to analyze performance drift.
Developed a tool to analyze changes in internal wikis (Azure) to generate report.
Created and debugged automated tests for web app using APIs and Selenium.
Upadated front and back end of .NET applications (WinForms and WPF).
Created PowerShell scripts to compare a csv list to organize file directories.
Implemented a C++ loopback test for a fiber-optic device with uart protocol.
Wrote documentation using doxygen for C++ and .NET applications.

Software Engineer Intern, Nasuni | Boston, MA — May - Sep 2019
Designed, implemented and tested a python tool suite that extracts and builds the lifecycle of filesystem objects on a single on-premise NAS appliance or multiple such geographically-distributed appliances.

Skills

Programming Languages:
Python, C#, C++, C, JavaScript, HTML/CSS, Java, Verilog, VHDL, PowerShell, MATLAB, Bash, LaTeX
Technical Skills:
Windows, Linux (Debian, RedHat), macOS, .NET Framework, Selenium Driver, Analog and digital circuit design
NuGet package management, Arduino, VMWare, Git, Azure DevOps, Agile project management (JIRA)
Test Instruments:
Soldering iron, scilloscope, wave function generator, digital multimeter, waveform generator, power supply

Academic Projects

Triple DES Encryptor/Decryptor | Hardware Security | Individual — Oct 2019
Wrote Python application that can encrypt and decrypt a message using a triple DES algorithm

Microcontroller Communicaiton | Microcontrollers in C | Team of 3 — Apr 2019
Used C to program a PIC16F87X microcontroller to read in a voltage and then transmit it to another PIC16 using i2c based protocol.
Reading and writing out to microcontroller's registers to enable functionalities such as the timer ISR and to manipulate data using shift registers