Kai Arsenault

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Education

Wentworth Institute of Technology | Boston, MA   Expected Apr 2021

Bachelors of Science, Computer Engineering   GPA 3.78

Minor, Computer Science   Dean's List

Member of IEEE-Eta Kappa Nu (IEEE-HKN), the honor society of IEEE

<u>Relevant Coursework</u>

Computer Architecture, Advanced Digital Circuit Design, Hardware security, Analog Circuit Design

Signals and Systems, Data Structures, Computer Networks, Microcontrollers Using C

Related Experience

Defense and Aerospace Software Intern, Teradyne | Boston, MA   Jan - Dec 2020

Implemented a C++ loopback test for a fiber-optic device with uart protocol.

Merged C/C++ and C++/CLI projects and added features to API and GUI (C#).

Created PowerShell scripts to compare a list (.csv) of programs and a list of files

    with their checksum values against a local system for missing programs or files.

Upadated front and back end of .NET applications (WinForms and WPF).

Wrote documentation using doxygen for C++ and .NET applications.

Worked in teams using Azure DevOps and Team Foundation Server (TFS).

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.

Worked in teams using Agile project management through JIRA

Skills

Programming Languages:

Python, C++, C, Verilog, VHDL, PowerShell, Java, C# (WPF and WinForms), Bash, LaTeX

Technical Skills:

Linux (Debian, RedHat), Git and Azure DevOps, .NET Framework, Analog and digital circuit design

Agile project management (JIRA), NuGet package management, Arduino, VMWare, Vim

Test Instruments:

Oscilloscope, 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