# Kai Arsenault

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## Education

## Wentworth Institute of Technology $\mid$ Boston, MA

Sep 2017 - Aug 2021 GPA 3.84 Dean's List

Bachelors of Science, Computer Engineering Minor, Computer Science

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

#### Technical Skills:

Windows, Linux (Debian, RedHat), macOS, .NET Framework, Selenium Driver, Git, Arduino NuGet package management, VMWare, Azure DevOps, Agile project management (JIRA)

#### Test Instruments:

Soldering iron, oscilloscope, 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 Communication | 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