Hello, I'm Tom Sloan.

I am a highly driven worker, leader, and builder who loves to be immersed in the bleeding edge of technology. With my experience as a researcher, passion of creating high impact technology, and leading teams to help exceed expectations, I am ready to jump into my next challenge. Learn more on my website: tom-sloan.com

Notable Certifications

- AWS Certified Solutions Architect - Associate (SAA) *January 10, 2022*
- AWS Certified Developer – Associate (DVA) *February 3, 2022*
- AWS Certified Cloud Practitioner (CLF) *July 20, 2020*

Notable Independent Projects

Smart Home Internet of Things, Independent Project May 2018 – April 2020
C, C++, Python, CAD, PCB Design, AWS, Firebase
- Made a Smart Home using a Raspberry Pi using Python, and AWS
- Wrote an application that allow easy control of the IoT devices from an iPhone
- Incorporated Firebase into the iPhone application to provide authentication, storage, and machine learning capabilities
- Designed many CAD models using Fusion 360 for varying applications, including a Smart Home case, and light fixtures
- Designed, built, tested, and demonstrated many different devices that could be automated or controlled over Bluetooth and Wi-Fi with easy-to-use applications on both iOS and android operating systems
- Built numerous Internet of Things projects with a wide variety of hardware with and without Arduino using several different sensors and wireless connections methods using C, C++, and Python
- Created testing scripts of several projects using C and C++ to ensure the reliability of both the software and hardware designs

See more at: tom-sloan.com > *project* > *Smart-Band-Project*

Smart Band Internet of Things, Independent Project May 2018 – April 2020
C, C++, Python, CAD, PCB Design, AWS
- Designed and built a printed circuit board for a fitness tracker
- Wrote software that connects the fitness tracker to the above Smart Home app, for notifications and various data points to be shared
- Used a machine learning algorithm (Support Vector Machine) to count steps and to use gestures to control the IoT devices constructed in the above project
- Used Fusion 360 to design CAD models for molds to make silicone wristbands using silicon epoxy and other parts

See more at: tom-sloan.com > project > Smart-Band-Project

Other projects
- Portfolio Website, *React, Redux, JavaScript, HTML, Sass*
- Twitter Bot, *Python*

Work Experience

Spectrum Engineering Co-Op Telesat, Ottawa May 2020 - April 2021
Researcher Carleton University, Ottawa May 2018 - April 2021

See more at: tom-sloan.com > *experience*

Technical Experience

Python	C	Java	JavaScript	React	HTML5
CSS3	MATLAB	Three.js	NodeJS	PCB Design	Github
Sass	Altium	Arduino	A more comprehensive list is at tom-sloan.com		

Contact

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Education

Fall 2017 – Fall 2021
Carleton University
B.S. in Computer Systems
Engineering with Distinction

Teamwork

Team Lead of a 4th Year Project titled *Smart Pillbox for Persons with Dementia*.

Report can be found at tom-sloan.com > *project* > *Smart-Pillbox*

Team Lead of 4th year group project titled *Project Deep Space Sparkle*.

Report can be found at tom-sloan.com > *project* > *Deep-Space-Sparkle*

Notable Awards

- Natural Sciences and Engineering Research Council of Canada Undergraduate Student Research Award ($6735)
- A. Davidson Dunton Scholarship ($8000)
- Carleton Engineering Faculty and Design Scholarship ($1000)

Hobbies & Misc.

- Canadian Securities Course
- Black Belt in Karate
- Royal Conservatory of Music Level 7 for piano
- Aquafitness Instructor June 2016 – Dec 2017
- Lifeguard and Swimming Instructor May 2015 – Dec 2017