

<div>Alex Lin</div>	<div>Backend and low level systems software developer with a background in Mathematics, Statistics and Security. Searching for a full time remote position to start in May 2022.</div>
<div>Personal Info</div>	<div>Personal Projects, Hackathons and Club Experience</div>
<div>E-mail</div> <div>linalex314@gmail.com</div> <div>GitHub</div> <div>https://github.com/SpaSmALX</div> <div>Website</div> <div>https://alexlin.dev</div>	<div>Deerhunt Infrastructure Tech Lead 2020 - 2019</div> <div>UTM Robotics Club</div> <ul style="list-style-type: none"> Led a team of 10+ computer science students in the design, implementation, and use of infrastructure for scheduling and computation of AI vs AI competitions. Automated the computation and scheduling of 3000+ matches between 510 iterations of AI players for 20+ teams of 2-4 students through Azure VM, Azure Blob, MongoDB, Flask, Docker, NginX and ReactJS. <div>Charity Productivity App</div> <div>Hack the North</div> <ul style="list-style-type: none"> Worked on a team of four to develop a Flutter and Golang app which attempts to leverage the Stripe API and charity donations to help users maintain productivity. <div>Digital Receipts QR Code</div> <div>Hack the North</div> <ul style="list-style-type: none"> Worked on a small team to develop an Android app to help provide digital receipts through QR codes in order to save paper receipts. <div>EvtxReader Pip Package</div> <ul style="list-style-type: none"> Developed a Python Binary XML parser for Windows Event Log files.
<div>Frameworks</div> <ul style="list-style-type: none"> Flask VueJS / ReactJS / Flutter Jenkins Gunicorn Pytest NumPy / Pandas 	<div>Education</div> <div>University of Toronto</div> <div>September 2017 - April 2022</div> <ul style="list-style-type: none"> B.Sc. Major in Mathematics, Double Minor in Computer Science and Statistics with a focus in statistical learning.
<div>Languages (Proficient)</div> <ul style="list-style-type: none"> Python Golang C Bash JavaScript 	<div>Work Experience</div> <div>OS Security and Test Infrastructure Intern</div> <div>May - August 2021</div> <div>QNX, BlackBerry</div> <ul style="list-style-type: none"> Implemented new batch of unit tests for ‘Qtrace’ utility for QNX OS using Pytest and C. Qtrace traces a running program and logs all system calls made to the Libc library with different parameter options to format output. Very useful for debugging and is used internally and by customers of QNX to develop on top of the QNX OS. Debugged major Qtrace bug with GDB that involved incorrect dynamic memory allocation where memory wasn’t being cleared and caused a segmentation fault. Participated in daily scrum meetings and worked remotely for entire work term. <div>Cyber Security Analyst and Developer</div> <div>Jan - Dec 2020</div> <div>Deloitte</div> <ul style="list-style-type: none"> Developed a company internal full stack webapp using Flask, PostgreSQL, VueJS and the Qualtrics API to help the team keep track of projects and statistics. Full stack app now adopted by Deloitte cyber teams across Canada including Toronto, Montreal and Vancouver. Supported Deloitte’s Incident Response team to analyze, contain, eradicate and recover client networks that have suffered a recent cyber attack. <div>OS Security and Test Infrastructure Intern</div> <div>May - August 2019</div> <div>QNX, BlackBerry</div> <ul style="list-style-type: none"> Ported and upgraded old tests written in a company internal testing framework to Pytest for QNX OS’s Mandatory Access Control (MAC) feature which controls the permission levels of running system processes. Maintained nightly regression tests for MAC and other security features such as the Pluggable Authentication Module (PAM) and the Q-Crypto library with Jenkins server. Wrote Cron jobs which create backup zips of Jenkins server. Gained experience and understanding in cryptography, security and computer networking through weekly discussions with senior developers.
<div>Languages (Familiar)</div> <ul style="list-style-type: none"> Java Perl Rust SQL R (R Studio) Solidity (Ethereum) 	
<div>Tools and Infrastructure</div> <ul style="list-style-type: none"> GDB Git / SVN Microsoft Azure NginX / Apache Docker / QEMU / VMware MongoDB MySQL / PostgreSQL 	
<div>Soft Skills</div> <ul style="list-style-type: none"> Fluent in English, Mandarin and Russian. 	