Aaron GOIDEL
Computer Science Student

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⚲ New York, NY / Toronto, ON

Creative and driven computer science student with loves for learning and problem solving. Experience working in teams creating new technologies; strong leadership and presentations skills, and equally strong technical ability. Interested in machine learning, linguistics, operating systems, and in working to apply computer science to areas of passion, such as law, food, and music.

💼 PROFESSIONAL EXPERIENCE

July 2020
Current

Junior Software Engineer | HIGHSNOBIETY   New York, NY
> Junior Engineer creating a pipeline for retail product data collection
> Implemented, maintained, and improved upon web scraping and data parsing infrastructure for increased performance in data collection from retail partners—with performance increases of up to 80%
> Served as an interface between content and engineering teams to prioritize data collection and processing needs
> Assessed and performed triage for critical systems in real-time

December 2020
April 2020

Product Engineer | MLKMN   Remote
> Working to create onboarding and backend tools for a small (< 10 employees) startup
> Coordinate with business leadership to recommend and implement new technologies
> Manage the technology end of projects related to user onboarding

June 2019
August 2019

Cybersecurity Research Intern | NATIONAL SECURITY AGENCY   Fort Meade, MD
> Authored a patch in the Linux operating system, implementing a security hook and permissions for controlling file system watches, including corresponding test suite
> Experimented with machine learning models to estimate the proximity of Bluetooth Low Energy enabled IoT devices in obstructed spaces
> Presented progress and findings to groups of 20+ researchers in biweekly technical briefings

November 2016
August 2017

Lead Coding Instructor | MONTCLAIR LEARNING CENTER   Montclair, NJ
> Taught coding in after school and summer programs to primary and middle school aged students
> Created and executed lesson plans in Scratch, App Inventor, and Python
> Interfaced with parents on a weekly basis about student's progress
> Oversaw work done by junior employees

🎓 EDUCATION

September 2019
April 2023
(expected)

Current Student | UNIVERSITY OF TORONTO
> Current second year student seeking a Bachelor of Science in Computer Science with minors in Pure Mathematics and Linguistics
> GPA : 3.91/4.00
> Technology Officer for the Computer Science Student Community
> Contributing opinions writer for The Medium (school newspaper)
> Relevant course work : Theory of Computation, Software Design, Communication Skills for Computer Scientists, Project Management, Syntactic Patterns in Language, Syntax, Data Structures and Analysis, Computer Organization

September 2015
June 2019

High School | MONTCLAIR KIMBERLEY ACADEMY
> Graduated with a GPA of 3.75/4.0
> Classes included : AP Physics C, AP Calculus AB, AP Computer Science A, AP Chinese, Data Structures and Algorithms
> Leadership roles in several organizations including : Mock Trial (lead lawyer and captain), STEM Team (president), School Newspaper (chief digital editor), Committee for Educational Technology

☰ Technical Skills

PROGRAMMING LANGUAGES   C, Python, JavaScript (NodeJS, React, React Native), Java, Go

PLATFORMS & TECHNOLOGIES   Git (GitHub), Unix Command Line, LaTeX

TECHNICAL SKILLS   Agile, Scrum, Web Scraping, OOP, SOLID

SPOKEN LANGUAGES   English (native), Mandarin (intermediate)

✹ Certifications

U.S. TOP SECRET//SI//TK SECURITY CLEARANCE   Including full-scope background investigation, polygraph examination, and psychological evaluation

APPLE CERTIFIED MAC TECHNICIAN

RED CROSS CPR/AED CERTIFIED

🏆 Honors, Awards, and Achievements

2021	UofT Hack The Case Competition 1st Place
2021	UofT PyJaC Coding Competition Advanced Champion
2019-2020	Dean's List
2019-2020	Math and Computer Science Honour Roll
2019	Montclair Kimberley Academy commencement award in Computer Science
2018	Essex County Mock Trial champion
2017, 2018, 2019	Lockheed Martin Code Quest competition champion (New Jersey, Advanced Division)
2016, 2017, 2018	Agile Youth Hackathon champion

💻 Projects

LECTERN   ○ github.com/AaronCGoidel/lectern

An online learning community with the aim of eliminating international borders from learning. In a day and a half hackaton, I created a site where tutors and students from all across the globe could connect to exchange knowledge. This is achieved through the use of our very own cryptocurrency, KnowledgeCredits. This was my first introduction to blockchain and I intend to learn much more.

Ethereum   React   Firebase   NextJS

SIMULATING GALAXIES   ○ github.com/AaronCGoidel/n-body

A physics simulation of n particles illustrating the formation of galaxies after a big-bang like event. Written in pure C, this simulation is optimized to faithfully simulate 100,000+ particles on just a laptop.

C   OpenGL

SAFESEND   ○ github.com/MKA-Stem/ayc-galvanize

SafeSend utilizes two-factor-authentication and multi-layer encryption to generate secure links to data, ensuring it is only accessible by the intended recipient

JavaScript   ReactJS   NodeJS   Twillio

FSNOTIFY LSM HOOK   ↗ Patch on lore.kernel.org/

Implemented a new security check to Security-Enhanced Linux and the Linux Kernel which adds fine-grained control over the setting of watches on file system objects

C   SELinux   Kernel   Linux Security Module

COOKIE

Combining my passions for computer science and food, Cookie is a native smartphone app which applies graph theory to recipes, resulting in a dynamic cookbook. By reimagining recipes as a dependency graph, instead of as a static block of text, Cookie can combine, and simplify recipes to maximize efficiency in the kitchen

React Native   Typescript   Graph Theory   Mobile App