

EDUCATION

Columbia University

New York, NY

Bachelor of Arts; Computer Science

August 2020 - Present

- Accepted in Fall 2019, but chose to defer enrollment to the following year (starting Fall 2020)
- Expected Graduation in 2023

WORK EXPERIENCE

Lyft

San Francisco, CA

Incoming Software Engineering Intern

May 2020 – September 2020

- Joining Lyft as a software engineering intern in their San Francisco headquarters in Summer 2020

Stripe

Seattle, WA

Software Engineering Intern, Merchant Intelligence Team

January 2020 – April 2020

- Developing a system to quantify suspicious or potentially fraudulent account behavior from merchants with the intention of reducing fraudulent activity on platforms that use Stripe
- Technology used: Scala, Ruby, MongoDB

Tesla

Palo Alto, CA

Software Engineering Intern, Service Engineering Team

August 2019 – November 2019

Software Engineering Intern, Infotainment Automation Team

May 2017 – August 2017

- Recruited by Tesla in High School after publishing a popular open-source UI automation project on Github
- Developed a method to parallelize vehicle log aggregation, effectively reducing processing time by 50%+ in an internal tool used across all vehicles in the Tesla Model S/X/3 fleet
- Worked with the Firmware team to develop automation infrastructure for the Tesla Model S/X/3 Infotainment System
- Worked alongside a team of interns to create a web tool that analyzed cost differences between gas and electric powered vehicles

Capital One

McLean, VA

Software Engineering Intern, Risk / Anti-Money Laundering

June 2019 – August 2019

- Developed a tool for validating potentially suspicious transaction data in real-time to aid in the immediate identification of fraudulent account activity
- Developed a method to dynamically assign account information to a credit card without encoding the magnetic stripe, a solution that would allow for immediate card number reassignment in the event of a data breach

NCR Corporation

Atlanta, GA

Software Engineering Intern, Software Innovation Lab

January 2019 – May 2019

- Created the backend software for a facial-recognition locker system that was presented to executive level leadership at NCR and numerous outside organizations that utilized NCR products
- Chosen as the spring 2019 “Talented Intern” and was given the opportunity to speak at a company all-hands meeting

Lending Club

San Francisco, CA

Software Engineering Intern, Internal Tools and Infrastructure

June 2018 – August 2018

- Used Docker to standardize Python application deployment, enabling employees to develop microservices using frameworks like Flask and Django.
- Worked with Python’s Flask framework to develop a single notification gateway that enabled cross-platform communication across Slack, Atlassian tools, and numerous internal applications.

HACKATHONS

Participant: VandyHacks 2017 (*Vanderbilt University*), BigRedHacks (*Cornell University*), HackNC (*UNC - Chapel Hill*), HackGT (*Georgia Tech*), Disrupt the District (*Washington, DC*), ColaHacks (*USC*), Capital One Summit Hackathon (*Washington, DC*), HackGSU 2018 (*Georgia State University*), Google Tech Challenge (*Google - Atlanta, GA*), Uncommon Hacks (*University of Chicago*), MedHacks (*The Johns Hopkins University*), TOM:Vanderbilt (*Vanderbilt University*), T-Mobile AI Hackathon (*Georgia Tech*), AuburnHacks (*Auburn University*), UGAHacks (*University of Georgia*), HackGSU 2019 (*Georgia State University*), HackTech (*California Institute of Technology*), HackPrinceton (*Princeton University*), VandyHacks 2018 (*Vanderbilt University*), CalH 2019 (*UC: Berkeley*), Facebook Hackathon (*San Francisco, CA*), MIT Hacking Medicine (*Massachusetts Institute of Technology*)

Organizer/Mentor: CUhackit (*Clemson University*), HelloWorld (*Clemson University*), HackGT (*Georgia Institute of Technology*)

AWARDS / HONORS

- **1st Place at CalHacks 2019** | Presented by the University of California: Berkeley in Nov 2019
- **Microsoft Grand Prize Winner** | Presented by Microsoft at the University of California: Berkeley in Nov 2019
- **Docusign 2nd Place Winner** | Presented by Docusign at the University of California: Berkeley in Nov 2019
- **Best Mobile Hack at HackTech** | Presented by the California Institute of Technology (Caltech) in March 2019
- **Best IoT Device at HackTech** | Presented by the California Institute of Technology (Caltech) in March 2019
- **Best Hack that Acts on the Physical World** | Presented by Uber's Advanced Technology Group in March 2019
- **Best IoT Device at HackGSU** | Presented by Georgia State University in March 2019
- **Best Community Focused Hack** | Presented by State Farm in March 2019
- **Best use of SnapKit SDK at UGAHacks** | Presented by Snapchat in February 2019
- **Best use of Google Cloud Platform at AuburnHacks** | Presented by Google in February 2019
- **Best use of EventBrite at VandyHacks** | Presented by Vanderbilt University in November 2018
- **1st Place at HackGT** | Presented by NCR Corporation at Georgia Tech in October 2018
- **Best Voice Hack at HackGT** | Presented by Citi Bank in October 2018
- **Finalist at MedHacks** | Finalist at The Johns Hopkins University medical hackathon in September 2018
- **1st Place at ColaHacks** | Presented by The University of South Carolina in April 2018
- **Best Voice Hack at ColaHacks** | Presented by The University of South Carolina in April 2018
- **Finalist at HackGT** | Finalist at Georgia Tech's hackathon in October 2017
- **Best IoT Device at VandyHacks** | Presented by Vanderbilt University in October 2017

PATENTS

Apparatus, Method and Article for Prevention of Proximity-Based Device Authentication within a Defined Radius

US Patent Application Number: 62815758 | Provisional Patent Granted by the USPTO in March 2019

PERSONAL PROJECTS

The WallStreetBets Index | *Algorithmic trading strategy based on comments from a popular trading forum*

Python

<https://github.com/theriley106/TheWSBIndex>

July 2018 – March 2019

- Created a full-fledged Algorithmic trading strategy that included backtesting, broker integration, reliability testing, and projected returns
- Ran analysis on dozens of data points including comment sentiment, upvote count, and author reliability to find reliable indicators of future market price of a security
- Created a language processing model to extract the indicated position towards a specific security in a Reddit comment

No-Name Bot | *Open-source bot to purchase limited release sneakers*

Python

<https://github.com/theriley106/SneakerBotTutorials>

March 2017 - June 2018

- 300+ Stars on Github with ~1,500 weekly views
- The project was created for a YouTube tutorial series that has accumulated 200,000+ views
- Technology used: Selenium, PhantomJS, BS4, Docker

Amazon Textbook Arbitrage | *Finding Arbitrage Opportunities in the Amazon Textbook Marketplace*

Python

https://github.com/theriley106/Senior_Project

August 2016 – May 2018

- Analyzed millions of textbooks to find pricing discrepancies between trade-in price and market value
- Found thousands of profitable transaction scenarios based on these pricing discrepancies
- Technology used: Flask, BS4, Amazon Product API

OutCaptcha | *Chrome extension that solves reCAPTCHA 2.0 without human interaction*

Javascript/Python

<https://github.com/theriley106/outCaptcha>

June 2018 - July 2018

- Transcribes the audio response from reCAPTCHA's accessibility feature for visually impaired users
- Solves reCAPTCHA 2.0 with a 98%+ success rate | Project has 100+ stars on Github with ~800 weekly views
- Technology used: Javascript, Python, Flask, GCP

Headspace Bandwidth Reducer | *Restructuring audio to reduce server-side bandwidth costs by more than 50%*

Python

<https://github.com/theriley106/Headspace-Bandwidth-Reducer>

March 2018 - April 2018

- Created an alternate way of structuring audio files from a popular guided meditation app to significantly decrease bandwidth costs with no loss of audio quality
- This personal project gained the interest of several engineers at Headspace, and my web application was voluntarily taken offline in May 2018 with respect to an ongoing dialogue with the company
- Technology used: Flask, FFMPEG, Javascript