Henry C. Wong

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EDUCATION	**M.S. in Computer Science**	Aug 2020 - May 2022
	Missouri University of Science and Technology	Rolla, MO
	GPA: 3.7/4.0	
	B.S. in Computer Science	Aug 2016 - Aug 2020
	Missouri University of Science and Technology	Rolla, MO
	Major GPA: 3.4/4.0 — Cumulative GPA: 3.2/4.0	

CLEARENCES   **U.S Department of Defense Interim Secret Clearance**   2018

PUBLICATIONS   **Henry Wong**, Tie Luo. *"Man-in-the-Middle Attacks on MQTT-based IoT Using BERT based Adversarial Message Generation."* Twenty-Sixth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 3rd AIoT Workshop, August 2020.

EXPERIENCE

Washington University at St. Louis — St. Louis, MO
Computational Biology Intern at Spencer Labs — May 2021 - *Present*
- Worked with Dr. David Spencer to study the genomics of Acute Myloid Leukemia (AML).
- Built pipelines optimized specifically to Washington University's new compute cluster to process an arrangement of genomics data including Hi-C, Chipseq, and ATAC data.
- Wrote open source tools used to count DNA barcodes on DNA sequences using Julia.

Missouri University of Science and Technology — Rolla, MO
Graduate Teaching Assistant and Researcher — Dec 2019 - *Present*
- Taught 104 students for a graduate level Introduction to Artificial Intelligence course
- Covered topics such as A* search, minimax, quiescent states, and alpha-beta pruning
- Instructed Introduction to Programming, teaching fundamentals in C++ programming and achieved one of the highest teaching rating in the department

Liberty Mutual — Portsmouth, NH
Data Science/Cyber Security Intern — May 2019 - Aug 2019
- Analyzed data trends to finalize deals on authentication and user account services
- Saved more than $3,000,000 in password reset and training resources by developing a password validation web app using haveibeenpwd API and password creation research
- Won both 3rd Place and Employee's Choice at Liberty Mutual's Hackathon
- Used Splunk and Python to analyze authentication trends of over 50,000+ accounts to spot irregularities and vulnerabilities in password reset systems

The Boeing Company — St. Louis, MO
Cyber Security Intern — May 2018 - Aug 2018
- Obtained Department of Defense clearance for multi-million dollar projects
- Enforced the NIST Risk Management Framework for Security Inspections to secure and pass every government classified program at Boeing
- Reduced 3-10 hours per inspection by analyzing data on inspection practices

State Farm — Bloomington, IL
Software Engineering Intern — May 2016 - Aug 2017
- Saved 24 hours per week for IT employees by automating Test Environments in JavaScript
- Reduced help desk wait time by developing a Machine Learning chat bot for policy inquiries
- Designed an interactive Cyber Security lab for 100+ children from The Boys and Girls Club
- Cut load time for over 50 tools by 70% by re-engineering Perl/CGI automation tools
- Built Xbox Kinect application using Java for State Farm PR Events

PROJECTS	www.MoData.blog	Rolla, MO
	Editor-in-Chief	Sept 2017 - Present

- Founded a collaborative data blog called MoData.blog with a focus on Data Science
- Held work sessions and created new methods to get peers inspired by data
- Built full stack systems from the ground up including websites, servers, and databases
- Generated over 300 views a week through weekly blog posts on topics ranging from Missouri State Salaries to Terrorism Attacks Across the US

	Hospital Helper	Rolla, MO
	Team Lead	May 2020

- Created a hospital finder web application that provided users with more information over hospitals in their local area (https://www.h-helper.xyz).

	What Gets a Paper Published?	Rolla, MO
	Researcher	Dec 2019

- Performed statistical analysis on comparing features of published papers in the American Society of Civil Engineering (ASCE) Journal of Construction Engineering and Management.
- Link to report: https://github.com/HenryCWong/whatGetsPublished

	Ferro Silicon	Normal, IL
	Chief Design Officer	Sept 2015 - May 2016

- Co-led an Android Development team to win $100,000
- Developed a safe driving app to lower the risk of a distracted driver
- Directed a design team to develop a 2D gaming engine and perform consulting work

EXTRA-CURRICULARS	Association for Computing Machinery (ACM)	Rolla, MO
	Chair/Founder of the Missouri S&T Hackathon	Sept 2017 - May 2018

- Organized the first Missouri S&T Hackathon, Shamhacks (later renamed to PickHacks) which later grew into the largest hackthon in the state of Missouri
- Negotiated with every campus official to approve the first large scale hackathon

	ACM Student Chapter	Rolla, MO
	Vice-President	May 2017 - Dec 2017

- Oversaw over 100 peers, helping them find careers and navigate through the tech world
- Rearranged finances breaking our ACM chapter out of a period of consistent deficit
- Organized and marketed weekly events resulting in a 30% increase in active members

	MegaMinerAI	Rolla, MO
	Vice-President/Show Runner	Dec 2016 - Dec 2017

- Ran MegaMinerAI, a bi-yearly competition for developers to create Artificial Intelligence Programs for our developed game environment
- Hosted MegaMinerAI's 20th Anniversary competition bringing in more than 200 attendees

	ACM Cyber Security	Rolla, MO
	Special Projects Lead	Aug 2016 - Jan 2019

- Placed 26th in worldwide Capture the Flag(CTF) Competitions under the team M57
- Planned multiple Cyber Security Bootcamps at Sandia National Laboratory

SKILLS	**Technologies:** C/C++, JavaScript, Linux, Python, R, Julia, SQL, AWS
	Libraries: Numpy, Pandas, PyTorch, Scipy, Sklearn, Tensorflow

Awards	ACM KDD Student Registration Award	2020
	Missouri S&T Computer Science Mentor Award	2019
	Missouri S&T Computer Science Scholarship Award	2018

COURSES	Artificial Intelligence — Deep Learning — Statistical Data Analysis — Intro to Data Science — Combinatorics and Graph Theory — IoT with Applied Data Science — Data Mining