

# Henry C. Wong

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EDUCATION	<b>M.S. in Computer Science</b> Missouri University of Science and Technology GPA: 3.7/4.0	Aug 2020 - May 2022 Rolla, MO
	<b>B.S. in Computer Science</b> Missouri University of Science and Technology Major GPA: 3.4/4.0 — Cumulative GPA: 3.2/4.0	Aug 2016 - Aug 2020 Rolla, MO
CLEARANCES	<b>U.S Department of Defense Secret Clearance</b>	2018
PUBLICATIONS	<b>Henry Wong</b> , Tie Luo. <i>"Man-in-the-Middle Attacks on MQTT-based IoT Using BERT based Adversarial Message Generation."</i> 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
	<b>Computational Biology Intern at Spencer Labs</b>	May 2021 - Present
	<ul style="list-style-type: none"><li>• Worked with Dr. David Spencer to study the genomics of Acute Myeloid Leukemia (AML).</li><li>• 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.</li><li>• Wrote open source tools used to count DNA barcodes on DNA sequences using Julia.</li><li>• Pushed changes into caper, an open source tool made to run ENCODE-DCC pipelines</li></ul>	
	Missouri University of Science and Technology	Rolla, MO
	<b>Graduate Teaching Assistant and Researcher</b>	Dec 2019 - Present
	<ul style="list-style-type: none"><li>• Taught 104 students for a graduate level Introduction to Artificial Intelligence course</li><li>• Covered topics such as A* search, minimax, quiescent states, and alpha-beta pruning</li><li>• Instructed Introduction to Programming, teaching fundamentals in C++ programming and achieved one of the highest teaching rating in the department</li></ul>	
EXPERIENCE	Liberty Mutual	Portsmouth, NH
	<b>Data Science/Cyber Security Intern</b>	May 2019 - Aug 2019
	<ul style="list-style-type: none"><li>• Analyzed data trends to finalize deals on authentication and user account services</li><li>• 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</li><li>• Won both 3rd Place and Employee's Choice at Liberty Mutual's Hackathon</li><li>• Used Splunk and Python to analyze authentication trends of over 50,000+ accounts to spot irregularities and vulnerabilities in password reset systems</li></ul>	
	The Boeing Company	St. Louis, MO
	<b>Cyber Security Intern</b>	May 2018 - Aug 2018
	<ul style="list-style-type: none"><li>• Obtained Department of Defense clearance for multi-million dollar projects</li><li>• Enforced the NIST Risk Management Framework for Security Inspections to secure and pass every government classified program at Boeing</li><li>• Reduced 3-10 hours per inspection by analyzing data on inspection practices</li></ul>	
EXPERIENCE	State Farm	Bloomington, IL
	<b>Software Engineering Intern</b>	May 2016 - Aug 2017
EXPERIENCE	<ul style="list-style-type: none"><li>• Saved 24 hours per week for IT employees by automating Test Environments in JavaScript</li><li>• Reduced help desk wait time by developing a Machine Learning chat bot for policy inquiries</li><li>• Designed an interactive Cyber Security lab for 100+ children from The Boys and Girls Club</li><li>• Cut load time for over 50 tools by 70% by re-engineering Perl/CGI automation tools</li><li>• Built Xbox Kinect application using Java for State Farm PR Events</li></ul>	

## PROJECTS

www.MoData.blog

### Editor-in-Chief

Rolla, MO  
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
- Took consulting jobs from numerous small businesses
- Analyzed data to push government reforms to improve student life in Missouri with collaboration of local government
- 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

### Team Lead

Rolla, MO  
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>).

Ferro Silicon

### Chief Design Officer

Normal, IL  
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)

### Chair/Founder of the Missouri S&T Hackathon

Rolla, MO  
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

### Vice-President

Rolla, MO  
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

### Vice-President/Show Runner

Rolla, MO  
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

### Special Projects Lead

Rolla, MO  
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
- Participated in numerous Cyber Security conferences including multiple BSide conferences, Thotcon, Defcon, and more

## 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