

# Henry C. Wong

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## EDUCATION

### M.S. in Computer Science

Missouri University of Science and Technology  
GPA: 3.7/4.0

Aug 2020 - May 2022  
Rolla, MO

### B.S. in Computer Science

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

### U.S Department of Defense 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

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
- Graded AI code line by line providing a code review for every student
- Covered topics such as A\* search, minimax, quiescent states, alpha-beta pruning, and monte-carlo tree search
- Instructed Introduction to Programming, teaching fundamentals in C++ programming

Liberty Mutual

Portsmouth, NH

### Cyber Security/Data Science 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
- Created a 2D game promoting State Farm's motorcycle insurance through safe driving
- 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.
- Utilized SAS to perform studies on data gathered
- Collected data from ASCE websites with Python and BeautifulSoup
- 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) to grow into the largest hackthon in the state of Missouri
- Negotiated with every campus official to approve the first large scale hackathon
- Formed connections with companies with many being first time hackathon sponsors

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 competitors

ACM Cyber Security

Rolla, MO

### Special Projects Lead

Aug 2016 - Jan 2019

- Place 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, SAS, SQL, Tableau

**Libraries:** BeautifulSoup, Numpy, Pandas, PyTorch, Scipy, Sklearn, Tensorflow

## COURSES

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

## CERTIFICATIONS

**Deep Learning Specification Certification** ([deeplearning.ai](https://deeplearning.ai))

July 2020

**Machine Learning Certification** (Stanford University)

Aug 2017