

# JASON CHEN

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## Education

Northwestern University  
Master of Science in Robotics

Evanston, IL  
December 2021

Purdue University  
Bachelor of Science in Computer Engineering

West Lafayette, IN  
May 2020

## Technical Skills

Computer Language: Python, MATLAB, Java, C, R, Verilog, C++, Bash, Linux, MySQL, PHP  
Software/Tools: Pycharm, Unix/Linux, NetBeans, Arduino, Vim, QGIS, Visual Studios, OpenGL, GitHub, ispLever, ESP32 Microcontroller

## Work Experience

**Purdue University**  
**Undergraduate Teaching Assistant**

**West Lafayette, IN**  
January 2020 – August 2020

- Assisted students troubleshoot problems during lab office hours
- Attended weekly meetings with other teaching assistants and professors
- Assisted Graduate Teaching Assistant in grading students' homework
- Worked on ECE 20875, Python for Data Science
- Continued to work job remotely during Covid-19 Pandemic

## **ECE Shop**

January 2020 – August 2020

- Managed inventory of ECE Shop to help students locate spare electronic parts for lab courses
- Handed out lab kits to students taking various lab-based ECE courses
- Fixed broken lab equipment
- Made sure shop was kept in a clean and organized fashion
- Worked on the development of website for EE shop remotely during Covid-19 Pandemic

## Research Experience

**Georgia Institute of Technology**  
**Civic Data Science REU, Undergraduate Researcher**

**Atlanta, GA**  
May 2019 – July 2019

- Conducted NSF funded research on fire truck delays at traffic light intersection
- Analyzed fire truck location data to determine behavior at intersection using QGIS
- Implemented filters to remove uninteresting points using Python
- Created analysis-based visualizations using leaflet.js: <https://cav.ce.gatech.edu/>

**Florida International University**  
**NSFDOD REU, Undergraduate Researcher**

**Miami, FL**  
May 2018 – August 2018

- Conducted NSF funded research on routing protocols for ad-hoc networks for swarms of drones
- Compared routing protocols based on how well drones routed data from one point to another using MATLAB

### **Academic Projects**

#### ***Purdue University***

##### ***Robotic Arm-Arduino***

- Semester long project for Senior Design
- Controlled a Robotic Claw using Arduino IDE
- Used servo motors to move and hold robotic arm's joints
- Controlled motor positioning using PWM signal generated from esp32 WROOM chip
- Attempted to mimic human arm and hand movement wirelessly via Bluetooth

##### ***Pong-Embedded C***

- Final project for Embedded Systems Design Class
- Programmed Pong on an LCD display using Embedded C
- Controlled paddles using joysticks wired on breadboard

##### ***Steganography-Python***

- Final Project for Software Engineering Class
- Embedded colored image inside an image carrier and then extracted embedded image out without affecting its visual appearance
- Used Qt Designer, a GUI designer, to implement program in a GUI application