JASON CHEN

jasonchen2021@u.northwestern.edu (617)-584-8949 linkedin.com/in/jasonchen1998
github.com/chen2156 Robotics Portfolio: chen2156.github.io

EDUCATION

Northwestern University **Evanston, IL**
Master of Science in Robotics Dec 2021
Purdue University **West Lafayette, IN**
Bachelor of Science in Computer Engineering May 2020

Technical Skills

Programming: Python, MATLAB, Java, C, R, Verilog, C++, Bash, Linux, SQL, PHP, Protocol Buffers
Robotics: Robot Operating System (ROS), SLAM, Gazebo, Rviz, Turtlebot3, Baxter, Arduino
Cloud: AWS EMR (PySpark/Python), Athena, S3, Lambda, Step Functions, Azure, Splunk
Others: QGIS, Git, (ESP32, STM32, PIC32) Microcontroller, JIRA, Pytest, MacOS, Windows

Experiences

Galileo Financial Technologies **Sandy, UT (Remote)**
Software Engineer – Risk & Fraud Feb 2022 – Present
- Developed and automated unit testing process/pipeline for Dynamic Fraud Detection Engine using **Pytest**, improving reliability and reducing failure rate of rule change updates
- Built a pipeline in **AWS EMR** that automated data collection, data cleaning, and engineering to ensure scalability and improved ML training time to help determine fraudulent transactions
- Collaborated with the whole team to revamp Dynamic Fraud Detection Engine into Payment Risk Platform by building a new pipeline to DataVisor, a third party API, using **Protocol Buffers** to serialize and deserialize objects and showed improvement on latency using dashboards on **Splunk**
- Participated in design meetings by providing meaningful suggestions that helped the team progress through the design planning process as well as learned more about industry trends and practices

Symbotic **Wilmington, MA**
Machine Learning Intern Jun 2021 – Sep 2021
- Collected multiple months worth of training data for Bot Health Monitor ML model to upload into **Azure** blob containers and documented information about data on **JIRA**
- Implemented a process to categorize and sanitize incoming data stream to gather ML model training data

Purdue University **West Lafayette, IN**
Undergraduate Teaching Assistant Jan 2020 – Aug 2020
  Course: ECE 20875, Python for Data Science

Electrical and Computer Engineering (ECE) Shop Jan 2020 – Aug 2020
  Managed inventory of ECE Shop to help students locate spare electronic parts for lab courses as well as fix broken lab equipment and hand out lab kits to students taking various ECE lab courses

Georgia Institute of Technology **Atlanta, GA**
Civic Data Science REU, Undergraduate Researcher May 2019 – Jul 2019
- Conducted NSF funded research on fire truck delays at traffic light intersections by analyzing fire truck location data to determine behavior at intersections using **QGIS**
- Created analysis-based visualizations using leaflet.js: https://cav.ce.gatech.edu/

Florida International University **Miami, FL**
NSFDOD REU, Undergraduate Researcher May 2018 – Aug 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 point to point using **MATLAB**

Academic Projects

Graduate School Projects: chen2156.github.io

Robotic Arm-Arduino
- Controlled a Robotic Claw using an **Arduino** IDE in a semester-long project for Senior Design
- Created a servo motor equipped robotic arm that was controlled using PWM signals transmitted over bluetooth from a user-controlled glove powered by **ESP32** chip

Pong-Embedded C
  Programmed Pong on an LCD display using Embedded **C** by controlling paddles using joysticks wired on breadboard as a final project for Embedded Systems Design Class

Steganography-Python
  Embedded a colored image inside an image carrier and then extracted the same embedded image out without affecting its visual appearance using Qt Designer, a GUI designer, to implement program