Zhengqi(Drago) Dong

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EDUCATION

Boston University, College of Engineering, Boston, MA (GPA: 3.9/4.0) **Expected 12/22**
MS in Robotics & Autonomous Systems
The Ohio State University, College of Engineering, Columbus, OH (GPA: 3.67/4.0) **05/21**
B.S Computer Science Engineering (Minor in Statistics)
Graduated with Honor in Engineering, and Honor Research Distinction in Agricultural Engineering

Related Coursework: Medical Robotic, Robotic Autonomous System, Machine Learning, High-performance Deep Learning, Natural Language Processing, Algorithm & Data structure, Operation System, Networking, Information Security, Web Development, Database Systems, Probability & Statistic, Statistical Modeling, Excel and Access, Analog & Digital Circuits

WORK EXPERIENCE

BU Spark!, Boston, MA, United States 09/2021 - 01/2022
Software Developer Intern
- Created a website that loads mutual aid resources from Postgres database, then displays all food resources and mutual aid locations around Greater Boston area in an interactive map by using mapbox API.
- Designed and developed the front-end in Gatsby to improve user experience by adding multi-language feature.
- Deployed frontend via GitHub Pages with https secure access in https://bu-spark.github.io/se-team-mejia/, and utilized Docker Compose to containerize the back-end application, then deployed on AWS EC2 instance, and the communication between frond-end and backed was secured with TLS certificate.

The Ohio State University, Columbus, United States 08/2020 - 05/2021
Student Instructional Assistant
- Teaching assistant for CSE 3461 (Computer Networking and Internet Technologies), supervised by Prof. Jim Vickroy.
- Hold weekly office hours, oversaw lab sections, and answered students' questions regarding homework and labs.

PROJECTS AND RESEARCH

Multi-threaded MapReduce Emulator (Multithreaded programming, C, Makefile, Valgrind): 01/2021 - 05/2021
- Designed and implemented a multi-threaded version of MapReduce Emulator for counting the number of occurrences of words for a given file, which potentially can be used for search engines or web crawlers in text processing.

Deep-Learning Based Plant Disease Detection(Python, TensorFlow, Slurm/PBS scheduler): 06/2019 - 12/2020
- Awarded $5500 scholarship by proposing an image-based deep learning approach and application framework design for plant leaves disease detection.
- Compared pros and cons between machine learning and deep learning-based detection.
- Conducted sequences of experiments on multiple factors including train-validation split ratio, batch size, and complexity size of pre-trained models, which resulted in 99.5% and 98.11% accuracy in training and validation respectively.
- Completed "Honors Research Distinction" thesis by authoring and presenting multiple deliverables works of literature, including over 70+ pages thesis, presenting a poster in two research forums, and oral defense presentation.

SKILLS

Programming languages: Python(Django, Flask, PyTorch, and certified Google TensorFlow Developer), and C(GDB, Valgrind, makefile), R(tidyverse and shiny), Java, Ruby(Ruby on Rails), SQLite, X86 Assembly Language, HTML, CSS(Bootstrap), JavaScript(React.js, Gatsby, Prisma), MATLAB, Bash Script, LaTeX
Software Tools&Technologies: Visual Studio, Linux, Github, AWS(Cloud 9, EC2), Docker, Heroku, Postman, CAD(SolidWorks)
Robotic Tools&Technologies: ROS, SLAM, Jetbot, Jetson nano, Arduino, Milling, 3D Printing

ACTIVITIES

2019 RoboMaster Competition at Shenzhen: launched OSU first-year competition, cooperated with AI team members to develop customized infantry fighting vehicle Object Detection model with Yolo-v3 algorithm.
2018 IEEE SAC Micromouse competition at Pittsburgh University: Coded DFS/BFS/Uniform cost/A* search algorithm with Python on Micromouse robot to search the shortest path in a maze.

LEADERSHIP & EXPERIENCE

WebMaster, IEEE at OSU Undergraduate chapter, Columbus, OH 01/2018 - 05/2021
Vice-president, OSU Table Tennis Club, Columbus, OH 05/19 - 05/20

HONORS AND AWARDS

- Dean's List (>3.5 GPA) over five semesters and graduated with Honor Research Distinction.
- Awarded 2020, 2021 IEEE Excellent Service Award, active IEEE members (Student Member, 2018–Present).
- Awarded Table Tennis Team Champion at 2018-19 NCTTA Midwest Tournament.