WENFEI TANG

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EDUCATION

University of Michigan, Ann Arbor *Sept 2018 - Present*
Master's student in Computer Science Expected Graduation Date: Dec 2022
B.S. in Computer Science with *Honors* and *Distinction* GPA: 3.825/4, University Honors
Instructional Aide for EECS 281: Data Structures and Algorithms *Feb 2020 - Present*
Course Highlights: Data Structures and Algorithms(EECS 281), Web Systems(EECS 485), Introduction to Machine Learning(EECS 445), User Interface Development(EECS 493), Introduction to Computer Security(EECS 388)

SKILLS

Programming Language	C++(Advanced), Python(Advanced), MATLAB(Advanced), Javascript, HTML, C
Software & Tools	Visual Studio, shell scripting, Linux, Pytorch, Microsoft Office, LaTeX, Unity3D

CONFERENCE

Wenfei Tang, Sundaresh Ram*, Alexander J. Bell, Cara Spencer, Alexander Buschhaus, Charles R. Hatt, Marina Pasca diMagliano, Stefanie Galban, and Craig J. Galban. "**Detection of Cancer Lesions in Histopathological Lung Images Using a Sparse PCA Network**". Presented at 2021 AACR Conference on Artificial Intelligence, Diagnosis, and Imaging. 2020.

PROJECTS

Automated Lung Cancer Lesion Detection on H&E Stained Slides [Code] *July 2019 - Present*
Galban Lab, Department of Radiology, University of Michigan *Research Assistant*

- Developed an automated computer-aided clinical tool for detection of potential cancerous regions on histopathology images
- Proposed a baseline neural network method called GS-PCANet, which outperforms six other open-source histopathology image classification with the precision of 0.872 and accuracy of 0.908
- Project abstract accepted and presented on 2021 American Association for Cancer Research Conference as first author

MFocus, An Web Application for Managing Daily Tasks [Code] *Oct 2020 - Dec 2020*

- Developed an efficiency tool for managing tasks with HTML, Javascript (Vue.js) and CSS
- Designed an interactive reward system in the app where users can raise an e-pet
- Users can interact with the e-pet, purchase items for their pets, manage tasks and play Spotify music on the app

An Instagram Clone, Dynamic Page Development *Sept 2020 - Dec 2020*

- Developed a static site generator from templates using HTML and Python (Jinja2)
- Implemented the server-side dynamic pages with Flask and basic SQL
- Designed client application in JavaScript and used the REST API to achieve client-side dynamic pages

Mechanism Design for Parking Allocation Problem [Code] *Oct 2019 - Dec 2019*

- Modeled the parking allocation problem using a multi-agent system
- Validated three valuation schemes and pricing systems based on the profitability of the mechanism, and the welfare of agents
- Simulated these mechanisms with varied number of agents, number of slots and probabilistic models

Network Traffic Analysis and Anomaly Detection *Jan 2020 - Apr 2020*

- Applied manual and automated traffic analysis to detect network security problems
- Examined a home network packet trace packet using Wireshark
- Analyzed a pcap file programmatically to identify anomaly including port scanning and ARP spoofing

Compiler Construction *Jan 2020 - Apr 2020*

- Built a working compiler to transfer Decaf Language into MIPS language
- Developed both the front end and the back end parts of a compiler
- The compiler includes parser, scanner, semantic analyzer, code generator and code optimizer

ACTIVITIES

Presenter at 2021 Engineering Research Symposium *Jan 2021*
College of Engineering, University of Michigan

Math Writing Tutor for Intro to Differential Equation *Aug 2019 - Dec 2019*
Math Department, University of Michigan

China Software Cup, Second Prize in the National Final *June 2018 - Aug 2018*
Fast calculation of massive high-dimensional vector similarity