Jingfeng Pan

Phone: (+86) 18036679856 | Email: panjingfeng00@gmail.com| Website: https://jingfengpan.github.io/
Address: 5-2-1402, 19 Dongyanhe Road, Lianyungang, Jiangsu, China 222000

EDUCATION BACKGROUND

York University, Lassonde School of Engineering **Toronto, ON**
B.Sc. in Computer Science (Hons.) *Jan. 2020-Aug. 2023*

- Overall GPA: 8.01/9 | Major GPA: 8.29/9 | Ranking Top 5%
- Relevant Coursework: Linear Algebra, Data Structures, Discrete Techniques for Computing, Signals and Systems Theory, Operations Research, Software Engineering, Operating System, Machine Learning, Data Mining, etc.

SKILLS

Programming Languages: C, Java, Python, JavaScript, SQL, React, MATLAB, R
Data Science Libraries: NumPy, SciPy, Panda, Scikit-Learn, TensorFlow, Scrapy, Matplotlib, Seaborn, Selenium, PyTorch
OS: Windows, Linux, Android Q, iOS, macOS

RESEARCH PROJECT EXPERIENCE

EECS 4088 Course Project: Optimizing Data Compression Using Online Clustering for Data Migration
Team Member | Supervisor: Prof. Aijun An, Prof. Xiaohui Yu | Industry Sponsor: IBM *Oct.2022-present*

- Received training on Gzip, LZ4 and Zstandard compression algorithms, and understood how offline clustering algorithms work.
- Practiced data compression and clustering algorithms on large data sets provided by the team.
- Finished all coding work of the online k-prototypes algorithm.
- Worked on data balance problems occurred when "workers" (CPU cores) operate in parallel.
- Published a paper titled "Optimizing Data Migration Using Online Clustering" as the first author at the CASCON 2023 conference.
- Constructed a model that can measure the cost of data migration in practical applications.
- Conducted research on online classification models and multiprocessing, dramatically increasing throughputs. New findings are being documented in a paper that will be submitted shortly.

Project: Attentive Sensor
Team Member | Supervisor: Prof. James Elder; Dr. Helio Perroni Filho *Sep.2022-Apr.2023*

- Aimed at designing and manufacturing a robot with long-range face recognition function:
  - Studied the Ubuntu system, docker container environment, and ROS (Robot Operating System).
  - Learnt PyTorch and implement the images reading program.
  - Took charge of code maintenance and updating work.
  - Applied the Haar-Cascade in OpenCV, HoG+SVM, and MTCNN for face detection, and used deep learning methods to recognize the face.

EXPLORE Project: ECOs from the Dark
An international research program jointly hosted by York University, University of Alberta, Goethe University and Washington University in St. Louis.
Team Member | Supervisor: Prof. Laura Sagunski (Goethe University) *Sep.2022-Apr.2023*

- Attended lectures on neutron stars, Exotic Compact Object (ECO), dark matter cores, and gravitational wave signals, and relevant research methodologies.
- Studied advanced functions of Python, and conducted literature reading.
- Took charge of coding work in the analysis of LIGO data.
- Trained an artificial neural network model that offers accurate predictions of impacts of dark matter cores on properties of neutron stars and gravitational wave signals.
- Implemented various learning techniques, such as stratified sampling and SHapley Additive exPlanations (SHAP) analysis, to boost the learning efficiency and increase the interpretability of the learning results.

Project: Questions Generation from Text
Team Member | Supervisor: Prof. Aijun An *May.2022-Jan.2023*

- Gathered, sorted, and analyzed massive data through Amazon Mechanical Turk (MTurk).
- Independently designed various interfaces through MTurk.
- Designed the structures, relationships, index, and timestamps of data sheet.
- Employed MTurk to streamline team collaboration and project management.

INTERNSHIP

E-Learning Internet Technology Learning Corporation **Zhejiang, China**
Paid Intern | Technical Department *Feb. 2020-May 2021*

- Designed and developed a dynamic customer registration and login interface and 3 administrator webpages for the E-Learning APP.
- Leveraged HTML, CSS and PHP for front-end development; used Python, JavaScript, MySQL and Apache for back-end development; bolstered full-stack development skill.
- Self-studied MySQL and applied it to develop the backend database.
- Gained essential experience in React, React Native, iOS App development, and debugging.
- Spearheaded a team effort to test, troubleshoot, deploy, integrate, and maintain developed software

AWARDS & HONORS

- Lassonde Undergraduate Research Award (LURA) – Summer 2023
- York University Continuing Student Scholarship – Fall/Winter 2020; Fall/Winter 2021; Fall/Winter 2022
- York University International Scholarship of Merit – Summer 2020; Fall/Winter 2020