

Tom(Tianze) Yang

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[Github](#)

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SKILLS

- Senior student researcher and ML engineer with 3+ years of experience delivering solutions to data analysis tasks
- Proficient in Python(Flask, Keras, Tensorflow), R, Linux, Java, Angular, Google Cloud, Latex, MS Office (Word, Excel, PowerPoint), Android Studio
- Great experience with ML, Docker, Time-Series analysis, Copula, Brownian Motion and Stochastic Process, Causal Inference, Reinforcement learning, and Nonparametric Statistics
- Fluent in English, Chinese, and French(intermediate)

EDUCATION

McGill University

M.Sc.(Thesis) in Computer Science, Supervisor: Prof. Xue Liu

B.Sc. in Honors Probability and Statistics, Computer Science, GPA 3.89

Montreal, QC

Sep 2023-Present

May 2023

PROFESSIONAL EXPERIENCE

McGill University & MILA,

ML Engineer, Full-stack Developer, Android Developer

Montreal, QC

Sep 2022-Present

- Initiated the AI Clinic on Mobile(AICOM) project which aims to deliver monkeypox screening service to people in the least developed countries
- Developed state-of-the-art Monkeypox Screening AI and Pipeline, achieving $\geq 95\%$ accuracy
- Created a [website](#) that hosts the AI service and introduces the AICOM project in detail using Angular, Flask, Google Cloud
- Fine-tune and migrate the DL model to low-end mobile devices through a float-16 quantization process, and optimized the app in a resource-constrained environment
- Worked closely with top researchers(Dr. Shaoshan Liu, Prof. Xue Liu, and Tianyi Yang) and first-authored an academic paper, [AICOM-MP: an AI-based Monkeypox Detector for Resource-Constrained Environment](#)
- Entered [MIT Solve challenge](#)

PROJECT EXPERIENCE

McGill University

Financial Data Analyst, PI: Prof. Christian Genest

Montreal, QC

Sep 2022-Dec 2022

- Conducted a Quantitative Risk Management(QRM) study on cryptocurrencies using R
- Designed a Time-Series model of the VaR of cryptocurrencies and examine their correlation through methods of Copula
- Worked closely with Prof. Genest and submitted a report of the analysis

AI Engineer, Full-stack Web Developer, PI: Prof. Jianguo Xia

Jul 2021-May 2023

- Implemented and deployed a public academic forum named [OmicsForum](#)(with over 725 users) using discourse and docker
- Designed, trained, and deployed RASA chat agent on MetaboAnalyst, which has been used by >500,000 researchers, through Python, JS, and JAVA
- Built a metabolomic tools search engine for SystemsAnalyst using MeiliSearch

ML Engineer, Data Analyst, PI: Prof. Suresh Krishna

May 2022-Sep 2022

- Processed and analyzed human eyeball scanpath data using Python and Matlab
- Modeled human visual search behaviour through zero-shot invariant techniques and bottom-up inverse reinforcement learning

REWARDS

- McGill University Renewable Annual Scholarship(2020-2023)
- McGill Emerging Leaders Certificate(2021)
- Dean's Honor List(2020-2021)
- Wing Hing Chan Scholarships in Science(2020-2021)