# JINYU HOU

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## **EDUCATION**

# University of Toronto, Honors Bachelor of Science

2018 - 2022

cGPA: 3.87/4.0 (Dean's List Scholar)

Computer Science Specialist, Program cGPA: 3.98/4.0 Focus: Computer System & Web And Internet Technologies

#### ACADEMIC EXPERIENCES

#### **Summer Research Student**

2020.5 - 2020.8

Lunenfeld-Tanenbaum Research Institute of Sinai Health System

· Worked on developing statistical machine learning model which analyzes epithelial cell RNA dataset to determine cancer cells under the supervision of Dr. Kieran R. Campbell.

# **Project Developer**

2019.6 - present

UTMIST (University of Toronto Machine Intelligence Student Team)

· Project associate: Being part of a machine learning research project (GAN Training Stoppoint Research Project). Implemented and integrated the VAE feature extraction section of the testing model which includes FID scoring analysis through the Gaussian distribution in the latent space.

### **EXTRACURRICULAR EXPERIENCES**

Science Writer Varsity Publications Inc. (University of Toronto student newspaper)	2019.5 - present
Research Assistant Agrawal Lab (University of Toronto Evolutionary Genetics Lab)	2019.5 - 2019.8
Student Researcher Hobei North University	2016.5 - 2017.4

Hebei North University

· Investigated the effect of wilfoside C3N on the death of tumor cells (ECA109) and published on the university journal.

#### TECHNICAL STRENGTHS

ProgrammingPython, Java, C, Verilog, RSoftware & ToolsMS Office, ™EX, Android Studio

Machine Learning Tool Pytorch, Numpy

Image & Video Processing Adobe Software (Illustrator, PS, Premier, LR)

Web Dev HTML5, JavaScript, Django

**OfftheBlock** 2020.1

*UofTHacks VII (Major League Hackathon)* 

2nd place for ChainSafe sponsor's award

· An ID registration platform applied face recognition system for registration and blockchain encryption technology for data storage. Distinguished as "a nice implementation of blockchain encryption". Was in charge of the web development and UI design with HTML, VUE and JavaScript.

# GAN Training Stop-point Research Project UTMIST

2019.10 - present

· A research project aiming at finding a method to determine an appropriate stop point of GAN training where the model can end up being neither under-fitting nor over-fitting. As the GAN being trained, the GAN-generated images and real images are feature extracted using VAE encoder. The distance between the two datasets are then evaluated with FID (Fréchet Inception Distance) Score.

# **PUBLICATION**

Hou Jinyu, Wang Jing. Wilfoside C3N Promotes Tumor Cell Death by Activating Gammadelta T Cells-Mediated Anti-tumor Immunity[J]. Journal of Hebei North University (Natural Science Edition), 2017, 33(2): 1-10.