# PINXIN LIU

andypinxinliu@gmail.com ◊ (585) - 540 - 7309 ◊ https://github.com/andypinxinliu

## EDUCATION

**University of Rochester,** B.S. Computer Science, Applied Math, GPA: 3.97 Anticipated May 2024

- Advisors: Sandhya Dwarkadas
- Relevant Coursework: *Machine Learning, Statistical Speech and Language Processing, Nature Language Processing, Computer Organization, Data Structures & Algorithms, Introduction to Computer Science, Linear Algebra, Introduction to Probability, Multivariate Calculus, Discrete Mathematics, Computation & Formal Systems, Operations Research, Applied Statistical Methods I, Intro to Signals & Circuits, Circuits & Signals, Electricity & Magnetism*

## INTERESTS

Natural language understanding, Data Mining, Machine Learning

## SERVICE

### Teaching and Mentoring

*Teaching Assistant*

- Spring 2021 & Fall 2020: *Discrete Mathematics* (MATH 150) at University of Rochester
- Summer 2021: Data Structure and Algorithm at TestDaily
- Summer 2021: Calculus I, II, III (MATH 100, 200, 300) at AUIA Summer School

## Research Experience

### FACTS.lab, MagaAttitude Research Member

- Develop a Deep Learning Model to extract the document level entity relation information for the Nature Language Processing (NLP) Coreference Resolution downstream task.

### Dongmei Li Lab

- Build Instagram E-cigarette image and interpretation dataset
- Apply CNN (Convolution Neural Network), LDA (Latent Dirichlet allocation), Vadar for image information identification and Instagram post topic and sentiment analysis.

### Neoscholar Education Group

- Conducted research of translation between scRNA and scATAC data via Variational Autoencoders (VAE).
- Identify the association between transcriptomic and epigenomic data, which could be used to infer the new regulatory relations and present adequate downstream analyses which show the validity of the translated products

## HONORS & AWARDS

**Honor in Mathematic Competition in Modeling (MCM)** January 2021

*A multi-day mathematical modeling competition held annually in the US. Awarded to top 15% teams on the basis of an outstanding competition record and unusual potential for math modeling.*

**Waterloo Euclid Mathematics Competition Honor ranking** February 2019

*Awarded to the student who has achieved the highest distinction in the International Waterloo Euclid Mathematics Competition. Top 2% out of 20944 participants (score 88 out of 100*

## SKILLS

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|---|---|
| **Programming Languages** | Python (Expert), Java (Competent), C++ (Familiar), C (Familiar) MySQL (Familiar) |
| **Tools & Libraries** | NumPy, Pandas, PyTorch, AllenNLP, LaTeX, Git, Vim |