Stephan Xie

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EDUCATION

University of Pennsylvania | Philadelphia, PA   May 2024
Candidate for Bachelor of Science in Engineering
Major: Computer Science and Mathematical Economics | *Cumulative GPA*: 3.85/4.00 | *STEM GPA: 3.90*

WORKING PAPERS

ESPRESSO: Robust discovery and quantification of transcript isoforms from error-prone long-read RNA-seq data (2022)
Y. Gao, F. Wang, R. Wang, E. Kutschera, Y. Xu, **S. Xie**, Y. Wang, K. E. Kadash-Edmondson, L. Lin, Y. Xing
Science Advances

RESEARCH EXPERIENCE

He Lab, *Research Assistant* | Philadelphia, PA   February 2022 - Present
- Studying virality and accuracy patterns through social learning games to test social behavior under different recommendation systems.
- Ran optimized numerical simulations to determine the steady states of viral information or misinformation.
- Developed games on the Python oTree platform to empirically study social learning behavior.

Xing Lab at Children's Hospital of Pennsylvania, *Research Assistant* | Philadelphia, PA   May 2021 -   Present
- Built and benchmarked a new RNA isoform quantification and visualization tool widely used by over 20 researchers in the lab to determine novel patterns in transcriptomics in relation to cancer and other applications.

Yao Research Group, *Research Assistant* | Houston, Texas   September 2019 – May 2020
- Developed the first 3D segmentation analysis of solid-state battery (SSB) microstructure design using convolutional neural networks in Tensorflow to determine correlations between structure and efficiency of SSBs.
- Awarded 2nd Place in the Energy and Transportation Category of the Science and Engineering Fair of Houston

WORK EXPERIENCE

Amazon, *Software Development Engineer Intern*   May 2022 - August 2022
- Using serverless code and remote storage, developed a service to decouple an Alexa AI decision-making engine from a longstanding production pipeline, resulting in deployed changes reaching customers in minutes rather than days.

Yi Technology, *Software Development Intern* | Houston, Texas   January 2019 – April 2019
- Developed a data scraping algorithm in Python to augment a company machine learning dataset by over 10x and trained computer vision models to improve vehicle transportation safety with smarter dashcams.

Other Experience: GEAR UP UPenn & Drexel Coach (2021)

PROJECTS

SendEquip   April 2020 - July 2020
- Created a platform to match PPE donors to medical professionals using JavaScript and deployed on Heroku.
- Multiple local medical professionals received PPE including N95 masks, disinfectant wipes, and surgical masks.

LEADERSHIP EXPERIENCE

Co-Founder, Cynfolia   January 2022 - Present
- Leading the tech infrastructure behind a startup that helps food upcycling businesses scale and manage their food byproduct supply.
- Semifinalist in the 2022 Penn Startup Challenge.

SKILLS AND INTERESTS

Programming Languages: Proficient at Python, Java. Familiar with C, shell scripting, R, OCaml, JavaScript.
Frameworks and Other: Numpy, PyTorch, Tensorflow, React, Flask, scikit-learn, Git
Language: Fluent Chinese, Beginner Japanese and Spanish