Jack Schluger

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EDUCATION

Cornell University, Ithaca, NY

August 2017 - May 2021

- Bachelor of Arts in Computer Science and Mathematics
- GPA: 4.07
- Relevant Coursework:
 - o Machine Learning for Intelligent Systems
 - o Intro to Analysis of Algorithms
 - o Functional Programming
 - o Object-Oriented Programming
 - o Systems Programming

- Basic Probability
- o Intro to Number Theory
- o Multivariable Calculus
- Linear Algebra
- o Discrete Structures

RESEARCH EXPERIENCE

Cornell University, Ithaca, NY; *Undergraduate Researcher*

September 2019 – Present

- Research how the CRAFT conversational derailment model (<u>arxiv.org/abs/1909.01362</u>) can be used by moderators on Wikipedia and Reddit to facilitate online moderation.
- Built a proof of concept / demo that we can maintain up to date derailment rankings of ongoing online conversations and display the computed rankings to moderators.
 - o Built a Rest API in Flask to run CRAFT on live comment threads from the ChangeMyView subreddit and make this data accessible to clients over http requests (github.com/jschluger/CRAFT-backend).
 - O Built a Flask server to query the Rest API and host a website to display these rankings to would be moderators (github.com/jschluger/CRAFT-frontend).
- Advised by Professor Cristian Danescu-Niculescu-Mizil.

Cornell Tech, New York, NY; *Undergraduate Researcher / Research Intern*

January 2019 – August 2019

- Investigatived how an artificially generated version of the Natural Language for Visual Reasoning dataset (nlvr.ai) can be used to understand and improve neural networks engineered for NLVR and related visual question answering tasks at the intersection of Natural Language Processing and Computer Vision.
- Advised by Professor Yoav Artzi.

Cornell Tech, New York, NY; Research Intern

June 2018 – *August* 2018

- Contributed to the development of CerealBar, an online multiplayer game built to study situated language understanding and learning to act collaboratively in a complex environment (<u>lil.nlp.cornell.edu/cerealbar/</u>).
 - o Developed online real-time multiplayer gameplay using Unity WebGL.
 - o Created and deployed a Flask server to host the game and maintain a database of gameplay logs.
- Advised by Professor Yoav Artzi.

PUBLICATIONS

Alane Suhr, Claudia Yan, <u>Jack Schluger</u>, Stanley Yu, Hadi Khader, Marwa Mouallem, Iris Zhang and Yoav Artzi. Executing instructions in situated collaborative interactions. In *Proceedings of the Conference on Empirical Methods in Natural Language Processing and the International Joint Conference on Natural Language Processing (EMNLP-IJCNLP), 2019. (arxiv.org/pdf/1910.03655.pdf)*

SOFTWARE DEVELOPMENT EXPERIENCE

Cornell App Development Project Team, Ithaca, NY; iOS Developer

January 2018 – December 2018

- Created iOS applications to benefit the Cornell community.
- Worked on Pollo, an app for real-time polling in situations from quizzes during a class lecture to voting in a board meeting (github.com/cuappdev/pollo-ios).
 - Implemented the iOS aspect of the app; worked with the backend team to implement communication with a PostgreSQL database server for data storage, using web sockets for real-time updates; worked with the design team to implement an intuitive user experience.

TECHNICAL SKILLS

Programming Languages: Python, Java, C, OCaml, Swift, JavaScript. **Tools**: git, emacs, Flask, PyTorch, TensorFlow, LaTeX, HTML/CSS.