Jack Schluger

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EDUCATION

Cornell University, Ithaca, NY   *August 2017 – May 2021*
- Bachelor of Arts in Computer Science; Summa Cum Laude (GPA: 4.07)
- Phi Beta Kappa Society honoree
- *Technical Coursework:*
  - Cloud Computing
  - Machine Learning for Intelligent Systems
  - Learning with Big Messy Data
  - Natural Language Processing
  - Intro to Computer Vision
  - Intro to Cryptography
  - Intro to Analysis of Algorithms
  - Operating Systems
  - Functional Programming
  - Object-Oriented Programming
  - Systems Programming
  - Basic Probability
  - Multivariable Calculus
  - Linear Algebra

RESEARCH EXPERIENCE

Research Intern at *Cornell University*   *September 2019 – Present*
- Researching how the CRAFT conversational derailment model (arxiv.org/abs/1909.01362) can be used by moderators on Wikipedia and Reddit to facilitate online moderation.
- Built a full stack system to run CRAFT live on conversations on Reddit and Wikipedia, display the results in real time, and store results for future use.
- Built an experimental javascript browser extension to run CRAFT live on conversations users participate in on Reddit, and show interventions to the users based on the results; currently in evaluation through a controlled trial.
- Interviewing admins on Wikipedia and moderators on Reddit as an early phase of the iterative design process, working towards building a useful and effective moderation tool with community support.
- Advised by Professor Cristian Danescu-Niculescu-Mizil.

Research Intern at *Cornell Tech*   *January 2019 – August 2019*
- Investigated 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.

Research Intern at *Cornell Tech*   *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 (lil.nlp.cornell.edu/cerealbar/).
  - Developed online real-time multiplayer gameplay using Unity WebGL.
  - Created and deployed a Flask server to host the game and maintain a database of gameplay logs.
- Advised by Professor Yoav Artzi.

TEACHING EXPERIENCE

Computer Science Tutor (*Freelance***)**   *April 2021 – Present*
- Developing and teaching a curriculum to teach a 10-year-old student fundamental computer science concepts through building a playable chess game in python.

Teaching Assistant for *Choices and Consequences in Computing* at *Cornell University*   *February 2021 – May 2021*
- Hold weekly office hours to help students, grade student assignments, and attend weekly staff meetings to continue developing this first-time course offering.

Teaching Assistant for *Machine Learning for Intelligent Systems* at *Cornell University*   *August 2020 – December 2020*
- Held weekly office hours to help students, and graded student assignments.

Math Tutor (*Freelance***)**   *December 2016 – June 2017*
- Tutored a fourth-grade student one-on-one for 22 weeks, to bring the student from a failing to a passing grade.

SOFTWARE DEVELOPMENT EXPERIENCE

iOS Developer for the *Cornell App Development Project Team*   *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.

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)

TECHNICAL SKILLS

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