

Benjamin Newman

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EDUCATION

Stanford University, Stanford, CA: 2017-2021 | Computer Science B.S./M.S. Candidate

- Relevant Coursework: Natural Language Processing; Machine Learning; Decision Making Under Uncertainty; Ethical and Social Issues in Natural Language Processing; Principles of Computer Systems
- Cumulative GPA: 4.0

EXPERIENCE

Research Assistant, The Stanford Natural Language Processing Group 2019 - Present

- Conducting various projects probing the ability of large, pretrained NLP models to linguistically generalize
- Prepared two manuscripts for submission to conference proceedings for summer 2020
- Led NLP reading group discussion and lab meeting presentations in labs of Percy Liang and Noah Goodman

Research Assistant, Stanford Internet Observatory 2020 - Present

- Contributing to the Election Integrity Partnership to support sharing of election-related information between researchers, civil society groups, and social media platforms
- Developing and using tools to analyze misinformation and disinformation concerning voter suppression

Software Engineering Intern, Duolingo June - September, 2020

- Owned project for improving audio-related features of the course-creation experience for contributors building Duolingo courses.
- Designed user flows and APIs using full-stack engineering tools (Typescript React-Redux, Python, and SQL)
- Researched, designed, and implemented a digital audio workstation geared toward course creators.

Research Intern, Stanford University Center for the Study of Language and Information June - August, 2019

- Proposed and conducted novel context-based assessment of computational models that produce human language
- Ran human Amazon Mechanical Turk experiments and constructed deep neural models for Natural Language Understanding (NLU)
- Publication in *Proceedings of the Society for Computation in Linguistics*

Software Engineering Intern, Supplyhouse.com June - August, 2018

- Led project to extract common question topics from customer-service customer conversations using Python and natural language processing (NLP) to recommend customer service training
- Updated internal marketing report generation site to generalize the report creation process using Java
- Generated product-related marketing reports from large SQL databases

RELEVANT PROJECTS

Course Projects:

- Modeling Common Ground Knowledge with Differentiable Neural Computers (2019)
- English-Chinese Name Machine Transliteration (Python, Pytorch) (2018)
- Using POMDPs to Learn Language in a Spatial Reference Game (Python, Julia) (2018)

Personal Projects: Online store inventory locator (HTML, Flask Python), Lab-bench calculation app (Java), Vocabulary tester program (Python), Corpus analysis of internet swear usage (Python, NLP)

SKILLS

- **Computer:** Proficient in Python (Pytorch, Numpy, Pandas, Matplotlib), C, Java, C++, Git, LaTeX, SQL, R
- **Language:** Proficient in Spanish