Benjamin Newman
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EDUCATION

Stanford University, Stanford, CA: 2017-2021 | Computer Science B.S. Candidate
- Relevant Coursework: Artificial Intelligence: Principles and Techniques, Natural Language Understanding, Algorithm Design and Analysis, Principles of Computer Systems
- Cumulative GPA: 4

TECHNICAL EXPERIENCE

Research Intern, Stanford University Center for the Study of Language and Information June - August, 2019
- Proposed and carried out novel context-based assessment of computational models that produce human language
- Ran human Amazon Mechanical Turk experiments and constructed deep neural models to predict human behavior
- Publication to appear 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 to recommend customer service training
- Updated internal marketing report generation site to generalize the report creation process
- Generated product-related marketing reports from large SQL databases

Software Developer, Stanford Student Space Initiative - High Altitude Balloons Team 2017 - 2018
- Created web-based telemetry monitor to ease debugging and allow for simultaneous read from a single serial port
- Wrote analog to digital converter code to monitor system current levels on the balloon payload
- Led team to implement a microcontroller to monitor atmospheric variable sensors and location through GPS and conduct satellite communications
- Helped develop altitude control program for 121-hour world-record breaking latex balloon flight

Research Intern, Yale School of Medicine June - August, 2015 - 2016
- Conducted computational biology research by adapting computer models of cellular processes in autoimmune diseases
- Worked in wet-lab and computational environments managing large biological datasets with Python & R
- Co-authored award-winning presentation 2015 Bio-Medical Research Conference for Minority Students

RELEVANT PROJECTS

Course Projects:
- Modeling Common Ground Knowledge with Differentiable Neural Computers (2019)
- English-Chinese Name Machine Transliteration (2018)
- Using POMDPs to Learn Language in a Spatial Reference Game (2018)
- Operating System for Bare Metal Raspberry Pi (2018)
- Analysis of People's use of color language

Personal Projects: Online store inventory locator, Lab-bench calculation app, Vocabulary tester program, Corpus analysis of internet swear usage

SKILLS

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