Justin Yu

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EDUCATION

Massachusetts Institute of Technology — Sept 2018 – June 2022

- **Intended Major/Minor:** Electrical Engineering and Computer Science/Linguistics
- **Relevant Courses:** Machine Learning, Multivariable Calculus, Introduction to Linguistics

Winchester High School — Sept 2014 - June 2018

- **GPA:** 4.21 out of 4.00 (weighted) | **SAT:** 1580
- **Captain of Robotics Team** — July 2016 – June 2018
  - Programmed autonomous robots in C to perform various tasks (i.e. object detection, color sorting, terrain navigation), utilizing sensor data from stereo cameras, gyroscopes, reflectance sensors
- **Coursework:** Independent CS Research Project (Abstractive Summarization: Current Methods and Drawbacks)

EXPERIENCE

UROP Researcher at MIT CSAIL (InfoLab) — Sept 2018 - Present

- Conducting NLP research to improve question answering systems by implementing sequence models to improve understanding of natural language queries; engineered MTurk experiment to collect custom training dataset.
- Built web-based tool for annotating videos to apply question-answering technology to MOOC content

Technology Lead and Board Member at Youth CITIES — March 2013 - Present

- Headed creation of web applications that bring digital mentorship to early-stage ventures
- Advised Youth CITIES on program development and strategy; served as a student mentor for 200+ total students

Summer Software Engineering Intern at Accion Systems — July 2017 - Aug 2017

- Built custom bootloader from the ground up using Assembly, C and the UART protocol to be used for reprogramming satellite thruster chips live in space; worked in a small, fast-paced startup environment
- Utilized tkinter and data processing libraries to improve custom GUI for analyzing thruster chip test data

Researcher at MIT PRIMES — Feb 2017 – June 2017

- Researched software control systems in collaboration with Head of Software at IPG Photonics;
- Research title: Automated calibration and a real-time web-based control interface for fiber lasers.

Co-founder and Director of MAHacks — Aug 2016 – July 2018

- Founded MAHacks, a high school hackathon with a focus on project sustainability and entrepreneurship
- Managed corporate relations and outreach with 20+ sponsor companies, negotiated $5000+ of sponsorship value

PROJECTS

- **Dormsp.am:** Unified calendar for all student events and activities at MIT, auto-generated by scraping campus-wide emails. Utilized Flask backend, React frontend, and Python NLP libraries for info extraction.
- **StoryGen:** Implementing hierarchical story generation with convolutional neural networks in Tensorflow
- **PRE:** Prototype Resource Exchange, a web platform to help resource-constrained, early-stage startups find prototyping resources; targetted towards helping high school entrepreneurs; uses Django full-stack.

HONORS/AWARDS

- 1st Place Overall at the New England Botball Robotics Tournament — April 2018
- 3rd Place at MIT Blueprint Hackathon — March 2017
- 2nd Place at LiHacks Hackathon — August 2016
- 1st Place Overall at the Global Conference for Educational Robotics — June 2015

SKILLS

- **Computer Science:** Python, Python Scientific Libraries (Numpy, MatPlotLib, Pandas), Full-Stack Web Development, Django, Postgresql, Flask, Javascript, C, Emacs
- **Machine Learning and NLP Libraries**: Tensorflow, Keras, spaCy, NLTK, sci-kit learn
- **Soft Skills:** Event Organization, Team Management, Conflict Resolution, Public Speaking