

# Benjamin T. Yang

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## Education

**Columbia University - May 2021**

MS in CS, Research Thesis Track | GRE: 162V, 168Q, 5.5W

**Rutgers University Honors College - May 2020**

B.S. in CS, Math, Cognitive Science; Minor in Philosophy;

GPA: 3.9/4.0 | Dean's List All Sems | Cap & Skull

**Coursework** > Transcript

**Undergrad:** Data Structures, Algorithms, AI,

Operating Systems, Distributed Systems, Probability

**Grad:** NLP, Time Series Analysis, Algorithms I, Theory of Statistics, Neurorehabilitation Robotics, PLs & Compilers

**Certificates:** Coursera Deep Learning Specialization

## Projects

**Combra Lab | Spiking Neural Nets** > About > Spring 2019

- Recreated SNN with CNN-inspired architecture following Diehl et al. 2015 STDP Paper in Python & Tensorflow
- Built Astrocyte units in SNN for **MNIST digit recognition**

**District Attorney's Office of NY** > About > Summer 2018

- Developed **parsing script** with a team of four other fellows to translate PDF data into CSV format
- Held weekly SCRUM meetings and sprints with clients to ensure the project met constantly updating scopes
- Learned **PyTesseract, Pillow, Wand**, and optical character recognition python libraries to parse PDF data

**Graduate Work + Research** > Spring 2018

- Synthesized different Kaggle and offline datasets to train an LSTM-based RNN that predicts and **suggests a rhyme** given the input of another on existing rap lyrics
- Used Unity and 2-D Anima to build a working model of **inverse kinematics** for a 2-legged walking dog, wrote a research paper on the benefits of neurorehabilitation
- Simulated a **hydrophobic-hydrophilic model** of Protein Folding using a modified Gibbs Energy eqn. in Java

**HackNY Social Good Projects** > Summer 2018

- Built an animated prototype of comic book Whitepaper by artist Tony Patrick in Unity, with sliders, shading, glitter, and zoom effects on all 40+ panels / covers
- Built Chrome extension for SimPrints third-party **identification software** using Vue.js and android scanner Integrated extension w/ hacked **Bluetooth Vero API Kit**

## Skills

**Programming Languages**

Proficient: Python, Java, C/C++, J, Go, JavaScript

Learning: R, Swift, Android, Bash, OCaml, Haskell

**Frameworks / Tools**

Proficient: Django, ReactJS, SQL, Git, Docker, Linux, Jupyter

Learning: MongoDB, Angular, Tensorflow, SciKit, Keras,

AWS, Bloomberg, Unity, Heroku, VBA, D3.js, VIM, Flask

**Github:** [benplus1](#)

**Linkedin:** [/in/bentyang](#)

**Website:** <https://benyang.me>

**Email:** [yang.benjamin1998@gmail.com](mailto:yang.benjamin1998@gmail.com)

## Work Experience

**Datadog | Software Engineering Intern** > About > Summer 2019

- Developed a Python service to aggregate **millions of notifications and data** processed per second for Slack, Email, and HipChat
- Worked with Kubernetes, Cassandra, Kafka, Spinnaker, and other containerization / data wrangling tools to deploy services
- Demoed relevant projects @ **AWS Summit and DashCon** for Datadog

**MakeSpace | Platform \ Software Engineer** > About > Summer 2018

- Developed Item Tagging Widget using **Computer Vision** and Machine Learning APIs like **Amazon Rekognition** & Google Cloud Vision
- Created in-house ML model to tag **~1 million** photographs of stored items
- Wrote a data **analysis report** on the volume and type of stored items using data visualization software (**D3.js**, etc.)

**XLP Capital | Software Engineer** > About > March 2018 - April 2019

- Implemented data source integrations (loading and analysis) for Interactive Brokers, **Bloomberg**, CCXT, Quandl **finance APIs**
- Developed trading platform GUI in J, allowing for resizing, tabbing, Excel functionality and handling of **2GB sized data** using JQT Framework
- Wrote **three trading algorithms** for trading NYSE equities & cryptocurrencies, algorithms that are still in development

## Leadership Experience

**CS First-Year Interest Group Seminar | Instructor** > About > Jan 2018 - Dec 2018

- One of **80** undergraduates teaching my own accredited college course.
- Deliver **10** original, activity-based lesson plans to a diverse group of **25** first-years as the sole instructor for **Exploring Computer Science**.

**Outreach Director / VP | Rutgers CS** > About > Fall 2016 - Present

- Building a strong Rutgers tech community by establishing **monthly speaker series** with 10+ speakers reaching a **300+ student audience**
- Running **RUnite CS Ambassadors** with **15** trained student developers, visiting **20+** middle and high schools, reaching **~1500 students**
- Collaborating with the CS department to improve recruitment efforts, community spaces, professional development, alumni relations, etc.

**President | Quantitative Finance Club** > About > Winter 2017 - Present

- Orchestrated and taught **14** advanced **technical presentations** involving trading models, finance, Black-Scholes & computer science theory
- Mentored **100+ members** regarding technical and practical knowledge for interviews and career search in addition to weekly mock interviews
- Maintained relationships with **40+ alumni** community, **speaker network**

**Veterans 4 Warriors PM | Rutgers Enactus** > About > Fall 2017 - Spring 2019

- Worked with a team of student entrepreneurs to coordinate intensive **ambassador** program for marketing and awareness of **Veterans' health**
- Built relationships with **20+ student** and administrative **organizations**
- Planned Veterans events, tabling activities, and social events with clients

## Other Involvements & Activities

RU STEM x Arts > Math & Design Chair > Fall 2017 - Present

Petey Greene > Tutor at Edna Mahan Correctional Facility > Fall 2018 - Spring 2019

HackRU > Finance & Research / Development Teams > Fall 2016 - Present

Research Assistant > Language Acquisition and Processing Lab > May 2017 - May 2018