

Education

Cornell Tech, Cornell University - New York, NY
Master of Engineering in Computer Science

Aug 2017 - May 2018

Baruch College, City University of New York - New York, NY

Aug 2012 - May 2016

Bachelor of Arts in Mathematics (3.755/4.0 GPA); Minor in Law and Policy; Cum Laude

Publications

Hyun Gi Lee, Evan Sholle, Ashley Beecy, Subhi Al'Aref, and Yifan Peng. 2021. **Leveraging Deep Representations of Radiology Reports in Survival Analysis for Predicting Heart Failure Patient Mortality.** *In Submission to NAACL-HLT.* [[pdf](#)]

Emily Tseng and Hyun Gi Lee. 2018. **A combined rule-based and statistical approach to family history extraction from unstructured text.** *In Proceedings of BioCreative/OHNLN Challenge, ACM-BCB.* [[pdf](#)]

Jia Xu, Yi Zong Kuang, Shondell Baijoo, Hyun Gi Lee, Uman Shahzad, Mir Ahmed, Meredith Lancaster and Chris Carlan. 2017. **Hunter MT: A Course for Young Researchers in WMT17.** *In Proceedings of the Second Conference on Machine Translation.* [[pdf](#)]

Experience

BioNLP Lab, Weill Cornell - Research Assistant

Jul 2020 - Present

- Improved all-cause mortality survival predictions with proportional hazards models by 5.7% on average in C-index and time-dependent AUC by utilizing BERT-based hidden features from 40K CT reports of 12K heart failure patients.
- Implemented a preprocessing module to extract disease entities and linguistic features from radiology reports with CheXbert and spaCy for knowledge graph construction.
- Share experiment results, present related papers, and set development plans in weekly meetings.

Telescope - Co-founder, CTO

May 2019 - Present

- Designed and developed a search engine with 1.5K YTD users for finding public companies based on specifications such as product/service offerings with Django, Bootstrap, and PostgreSQL. [[link](#)]
- Implemented an algorithm for detecting top daily company-specific news by aggregating and analyzing articles from multiple media sources with tools such as IEX Cloud API and TextRank.
- Conduct user research and manage product development cycles for feature implementations and bug fixes.

\Art Fellowship, Cornell Tech - Research Fellow

May 2018 - Aug 2019

- Collaborated with artist Mika Tajima and Brooklyn Research on a kinetic sculpture made with 50"x50" grid of 1600 electromagnets, ferrofluid, and Navier-Stokes-based fluid control program for public exhibition at Okayama Art Summit 2019. [[link](#)]
- Experimented with machine learning methods such as t-SNE and GANs to develop a visualization pipeline for the sculpture.
- Developed a hardware testing program with Processing and conducted reliability tests.

Oscar Health - Product Studio Developer

Aug 2017- Dec 2017

- Built an iOS application using HealthKit and PAM-omh to aid bipolar patients with tracking their daily health metrics.
- Implemented a chatbot using IBM Watson Conversation API for bipolar patient caregivers to connect with physicians and share updates.
- Delivered a prototype presentation to Oscar Health CTO and Cornell University.

Hunter Machine Translation Group - Research Assistant

Nov 2016 - May 2017

- Implemented a statistical machine translation system with Moses and trained the model with large corpora containing 2+ million parallel sentences on a high-performance computer.
- Conducted experiments to observe performance changes based on variations in model components and performed a grid search to find optimal hyperparameters.
- Improved on the baseline score for French-English bidirectional translation of biomedical texts by 5% in BLEU score and co-authored a workshop paper for WMT 2017.

Awards & Honors

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| The IDEA Innovation Competition - 2nd Place, \$5,000 | 2019 |
| \Art Fellowship - \$40,000 | 2018 |
| Simons Graduate Fellowship - \$15,000 | 2017 |
| Korean American Scholarship Foundation Award - \$2,000 | 2017 |
| Baruch Entrepreneurial Fellowship - \$1,250 | 2015 |
| Dean's List | 2013, 2015 |
| Sigma Alpha Delta Honor Society | 2013 |

Invited Talks

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| Creating a Tech-enabled Art Installation | 2019 |
| Sharing is Caring, Cornell University. | |
| A combined rule-based and statistical approach to family history extraction from unstructured text | 2018 |
| BioCreative/OHNLP Challenge, ACM-BCB. | |

Leadership

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|---|---------------------|
| Pursuit - Lead Student Ambassador / Intern | Jun 2015 - May 2016 |
| <ul style="list-style-type: none">• Planned Queens Tech Meetup 17 (80+ attendees) featuring product demos from Karma, Smart Vision Labs, Linute, and Easy Aerial.• Led five students to organize CUNY Tech Showcase (60+ attendees) featuring Digital Natives Group, AirHelp and 10 student-led startups on campus.• Assisted in drafting the Queens Borough President's Office Technology Strategic Plan. | |
| Hack for Baruch - Founder / President | Feb 2015 - May 2016 |
| <ul style="list-style-type: none">• Organized a hackathon (100+ attendees) in partnership with TransferWise. [Business Insider]• Hosted weekly workshops with seven students and guest speakers to teach web and mobile development, VR, fundraising and business development.• Coordinated on-site events with local companies including Facebook, Grand Central Tech and Empire Startups. | |

Skills

- **Software Development:** Python, Javascript, C++, Swift, HTML/CSS, Django, PostgreSQL, Numpy, Pandas, Tensorflow, PyTorch, Keras, scikit-learn, NLTK, spaCy, Bash, Git, Amazon Web Services, full-stack development, agile development
- **Language:** English (fluent), Korean (native)
- **Extracurricular:** 2019 Chicago Marathon and 2018 Philadelphia Marathon finisher