Kenta Takatsu

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Education

Cornell University, College of Engineering   *Ithaca, NY*

B.S. in Computer Science, Honors Candidate   *2015 - Present*
- Adviser: John E. Hopcroft

Professional Experience

Microsoft   *Redmond, WA*

Software Engineering Intern   *Summer 2018*
- Implemented machine learning plugins for Azure Data Analytic team; the features include kernel density estimation, linear/logistic regression, decision tree, and hyper-parameter search with Gaussian Process
  - Language: Javascript (d3, Angular.js), C#, Python

Akamai Technologies   *Cambridge, MA*

Software Engineering Intern   *Summer 2017*
- Built a web application to dynamically rank and assign server issues to certified engineers by the order of high-dimensional risk factors
  - Language: Python (Django, Tensorflow), Javascript (d3), PostgreSQL

DigiMo.ltd   *Tokyo, Japan*

Computer Vision Intern   *Summer 2016*
- Developed a human motion detection software for Tokyo Police Department surveillance system
  - Language: C++ (OpenCV)

Research Experience

NLP @ University of Washington   *Seattle, WA*

Undergraduate Research Assistant   *Summer 2018 - Present*
- Worked with **Prof. Yejin Choi** and conducted research on deep learning methods for natural language style transfer with seq2seq with attention; the new model is trained to re-write sentences in a less gender-biased manner.
  - Language: Python (Pytorch)

Social Dynamics Lab @ Cornell University   *Ithaca, NY*

Undergraduate Research Assistant   *Spring 2017 - Present*
- Conducted computational sociology research with **Prof. Michael Macy**; investigated information cascades in social media with the combination of graphical methods and deep learning.
  - Language: Python

Cornell Data Science NLP Research   *Ithaca, NY*

Team Lead   *Spring 2017 - Spring 2018*
- Led a team of researchers in machine learning under the supervision of **Prof. Thorsten Joachims**.
- Mentored **13** students, **7** research projects while leading 2 projects as a researcher.
- Projects are available at `https://github.com/CornellDataScience/NLP_Research-SP18`
  - Language: Python (TensorFlow)

Projects

Yuji Akimoto*, **Kenta Takatsu***, Chetan Valivela. QuACC: Question Answering for Cornell Courses. *Cornell Data Science Research.* *Spring 2018*
- Researched the functionality of attention mechanisms in a seq2seq model on a different level of word abstraction
- Received a sponsor award at the annual project competition hosted by the Cornell CS department

Kenta Takatsu, Caroline Chang. Topic Modeling as a Trend-Aware Performance Metric. *Cornell Data Science Research.* *Fall 2017*
- Investigated the effects of smoothing factor in Latent Dirichlet allocation
- Validated different topic modeling methods through both qualitative and quantitative methods

Extracurricular Activity

Cornell Data Science: Insight

Ithaca, NY

Founder | Team Lead

Spring 2018 - Present

- Mentored **9** students and led **2** data science projects to provide insight into complex systems through a combination of computational modeling and visual interfaces
- Received a Statistics faculty award at the Cornell's annual project competition.

INFO 4900: R for Data Science

Ithaca, NY

Course Founder

Winter 2016

- Developed course materials for the data science course with 4 other founding members
- The course has taught over **250** students and has been officially approved by the CS/INFO department of Cornell University
- The current course website is available at `https://junyounglim.github.io/machine-learning-course/#/schedule`

Teaching

Teaching Assistant

Ithaca, NY

Cornell University

Spring 2017 - Present

- CS 4780: Machine Learning for Intelligent Systems (Fall 2018)
- INFO/CS 3300: Data-Driven Web Applications (Spring 2018)
- INFO 4900: R for Data Science (Spring 2017)