

BRANDON CARTER

MIT CSAIL, 32-G540 (Stata Center), Cambridge MA 02139
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Education

Massachusetts Institute of Technology, Cambridge, MA December 2018 (expected)

M.Eng Computer Science, Machine Learning

Investigating computational methods for protein modeling and antibody design; advised by Prof. David Gifford

Teaching: Introduction to Machine Learning, Fall 2017 (Profs. Leslie Kaelbling and Tommi Jaakkola) - Teaching Assistant

Massachusetts Institute of Technology, Cambridge, MA June 2017

B.S. Computer Science and Engineering, B.S. Mathematics, Minor in Economics GPA: 4.7/5.0

Select Coursework: Bayesian Modeling and Inference, Machine Learning, Advanced Natural Language Processing, Performance Software Engineering, Theory of Computation, Computer and Network Security, Systems Security

Select Projects: Variational LDA Topic Modeling Implementation, Collaborative Filtering with Sentiment, Twitter Follower Count Prediction with NLP, Unsupervised Network Anomaly Detection, Understanding eBay Price Dispersion

Skills

Programming: Python, Java, C, JavaScript, SQL, PHP, HTML/CSS, familiar with R

Technologies: NumPy/SciPy/Scikit-learn (contributor), TensorFlow, git, GDB, Hive, MySQL, LaTeX, Django

Experience

Bloomberg LP New York, NY

Engineering Machine Learning Intern June 2017 - August 2017

- Researched techniques for automatically recommending intelligent financial market alerts to Bloomberg users
- Improved methods for implicit matrix factorization with side information, outperforming published approaches

KAYAK Cambridge, MA

Software Engineering and Data Analytics Intern May 2016 - September 2016

- Designed algorithms to analyze flight pricing data and generate informative natural language tips on a per-route basis, allowing users to save money when buying airfare; tips were used to build the 2017 KAYAK Travel Hacker

Leiden Institute of Advanced Computer Science Leiden, The Netherlands

Visiting Researcher January 2016

- Investigated decision tree models using time series data of intensive care unit patients to enable physicians to make more informed decisions about blood transfusions; with Profs. Aske Plaat and Siegfried Nijssen

Bloomberg LP New York, NY

Engineering Machine Learning Intern May 2015 - August 2015

- Designed and implemented a topic modeling architecture to infer abstract topics from a large corpus of legal documents, including NLP preprocessing, evaluation, web-based topic visualizations, and parallelized computation
- Enables lawyers to more quickly discover documents through improved information retrieval and recommendation

KAYAK Cambridge, MA

Software Engineering and Data Analytics Intern June 2014 - May 2015

- Designed and implemented an algorithm for re-structuring links across millions of webpages to improve user experience and maximize profits, also built web interface and monitoring dashboard
- Designed and implemented clustering model to compute similarities between hotels and cities

Consulting and Personal Projects June 2009 - Present

- Built save-science.org with Academics for the Future of Science at MIT, allowing thousands of people to easily contact Congress and support increased funding for scientific research
- Designed a customer relation manager and donation-tracking platform for the Institute of MERIT math enrichment program at SUNY Old Westbury, used to manage hundreds of donors
- Created StudentsThink, a resource for students to collaborate online, including forums and virtual whiteboards
- Co-designed a social, music-optimizing jukebox in MIT's October 2013 Hackathon

Biomedical Research June 2011 - August 2013

- Summer internships with Dr. Hidde Ploegh (2012-2013) at MIT's Whitehead Institute for Biomedical Research, investigating novel single-domain antibodies for tumor vaccine development
- Summer internship with Dr. Seth Epstein (2011) at Mount Sinai Medical Center, investigating use of ganciclovir as an adenovirus treatment in cell/animal models; co-author at Association for Research in Vision and Ophthalmology 2012

Activities

World Traveling; Sailing; Golf; Aviation (student pilot); Music (concert pianist and double bassist)