ANNAMARIE E. BAIR

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EDUCATION

Massachusetts Institute of Technology (MIT)

Candidate for Master of Engineering in Computer Science — June 2019 (expected)

Bachelor of Science in Computer Science and Engineering — June 2018
Minor in Brain and Cognitive Sciences

RESEARCH

MIT CSAIL Clinical Decision Making Group, Prof. Peter Szolovits — May 2017 - present

- Performing prediction of drug indication, mechanism of action (MoA), side effect, and other targets through analysis of expression data and drug structural data.
- Used machine learning methods to model gene expression data and analyze co-regulated genes.
- Participated in MITs SuperUROP Program.
- Work resulted in a poster presentation at the Women in Machine Learning (WiML) workshop.

MIT Interactive Robotics Group, Prof. Julie Shah — September 2015 - April 2016

- Conducted experiments that assessed situational awareness in human-robot interaction.
- Performed statistical analysis of experimental results.
- Work resulted in a publication in The International Journal of Robotics Research (IJRR).

MIT Media Lab, Prof. Eric Klopfer — June - August 2015

- Developed platform that organizes education standards across 15 countries to help teachers compare curricula with regard to student age and topic area.
- Wrote Natural Language Processing scripts in Python with NLTK.

MIT Koch Institute, Prof. Daniel Anderson — January - May 2015

- Assisted with design and creation of siRNA (small interfering RNA) used for targeted drug delivery.
- Maintained and split cell cultures and assisted with assays.

INDUSTRY

Microsoft — June 2018 - August 2018
Software Engineering Intern — *Redmond, WA*

- Migrated data quality metrics from SQL to NoSQL database.
- Improved and refactored existing codebase using C#, U-SQL, and T-SQL.

Driver — June - August 2017
Software Engineering Intern — *San Francisco, CA*

- Built an API using Python, PostgreSQL, and Flask for a consumer technology company building a platform to give cancer patients access to new treatments.
- API stores patient information and integrates with internal services to automate ordering of medical diagnostic test kits from a third party vendor.

The New York Times — June - August 2016
Software Engineering Intern — *New York, NY*

- Designed and implemented improvements to a mobile website using Javascript, HTML, and CSS.
- Determined how to improve the user experience of a mobile web app in collaboration with a designer and carried project through the entire development process until the product was deployed to production.
- Created an iOS prototype for a social feature for The New York Times Cooking App.

TEACHING

MIT Teaching Assistant — September 2018 - present
Introduction to Computer Science and Programming (6.00)

- Teach weekly recitation sections, write problem sets, hold office hours.

MIT Lab Assistant January - June 2018
Introduction to Computer Science and Programming (6.00)

· Assisted students with problem sets, gave check-offs, debugged problem sets before release.

La Miranda School Instructor January 2018
Barcelona, Spain

· Developed lesson plans and taught math, coding, physics, biology, and English to 6th - 12th grade students.

MIT Lab Assistant September - December 2017
Computation Structures (6.004)

· Assisted students with labs, gave check-offs, helped students with quiz preparation.

LEADERSHIP

MIT Class of 2018 Treasurer October 2014 - June 2018

· Managed and allocated a $400,000 budget over four years.
· Planned events, and study breaks to promote class unity, involvement, and well-being.

Kappa Alpha Theta Chief Recruiting Officer January 2017 - December 2017

· Organized Fall Recruitment and led 120 chapter members through preparation and recruitment weeks in the fall.
· Led several recruitment workshops to prepare members for recruitment. Topics included conversation skills, branding of the chapter, and logistical details.
· Served as a member of MIT Kappa Alpha Theta Executive board and MIT Panhellenic Recruitment Chairs Board.

PUBLICATION

Gombolay, M., **Bair, A.**, Huang, C., & Shah, J. (2017). Computational design of mixed-initiative human-robot teaming that considers human factors: situational awareness, workload, and workflow preferences. *The International Journal of Robotics Research, 36*(57), 597617. https://doi.org/10.1177/0278364916688255

PRESENTATIONS

Bair, A., McDermott, M., Wang, J., Zhao, W., Sheridan, S., Szolovits, P., Kohane, I., Haggarty, S., & Perlis, R. (2018, December 3). *Improved modeling and analysis of gene expression.* Poster presented at Women in Machine Learning (WiML) Workshop, co-located with NeurIPS 2018, Montréal, Canada.

Bair, A., McDermott, M., & Szolovits, P. (2018) *Improved modeling and analysis of gene expression.* Poster presented at MIT SuperUROP Poster Session, Cambridge, Massachusetts.

SKILLS

Programming: Python, Java, C#, SQL, MATLAB, JavaScript, HTML/CSS
Languages: Spanish (Proficient)