Tiffany Ding

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Education

Brown University **Providence, RI**
Sc.B., Applied Math *2017 – 2021*
GPA: 4.0

Brown University **Providence, RI**
Sc.M., Computer Science *2020 – 2021*

Publications

[1] **T. Ding** and E.S. Chen. Mining drugs and indications for suicide-related adverse events. In *AMIA Annual Symposium Proceedings*. American Medical Informatics Association, 2019.

[2] **T. Ding***, S. Kumar*, and S. Shaw*. A seabird population model to evaluate plastic pollution policies. *The UMAP Journal of Undergraduate Mathematics and Its Applications*. To appear Sept. 2020.

*equal contribution

Experience

Research

Brown University, Dept. of Computer Science **Providence, RI**
Master's Project *Mar 2020 – Present*
Advisor: Stephen Bach
Research on probabilistic models in weakly supervised machine learning.

Brown University, Dept. of Applied Math **Providence, RI**
Honors Thesis *Jan 2020 – Present*
Advisor: Charles (Chip) Lawrence
Research on methods for applying Gaussian processes and state space models to calibrate geological proxies for temperature.

Brown Center for Biomedical Informatics **Providence, RI**
Undergraduate Researcher *Sep 2018 – Jan 2020*
Advisor: Elizabeth Chen

- Used Python to create predictive models for suicide risk and compared performance of various data oversampling techniques.
- Applied association rule learning to FDA data using Julia to discover drug-drug interactions that increase suicide risk.

Brown University, Dept. of Economics **Providence, RI**
Research Assistant *Sep 2019 – Dec 2019*
Advisor: Emily Oster

- Summarized key findings of hundreds of scientific papers related to biology and public health.
- Performed preliminary steps of meta-analysis by calculating standardized mean difference using results of published studies.

Industry

Johns Hopkins University Applied Physics Laboratory **Remote**
Machine Learning Research Intern *Summer 2020*

- Trained and applied calibration methods to Softmax vectors to improve estimates of object detector uncertainty.
- Designed algorithm to apply hierarchical classification methods to object tracking setting and improved accuracy by 13% compared to baseline methods.
- Collaborated with other interns to develop heuristic-based algorithm for device deduplication using WiFi access data.

Facebook, Inc. **Menlo Park, CA**
Data Science Intern *Summer 2019*

- Conducted analyses on large datasets using SQL, Python, and Excel and created useful metrics and data visualizations.
- Effectively communicated findings through write-ups and presentations to team members and other interns.

Honors

Outstanding Paper, Interdisciplinary Contest for Modeling *Feb 2020*
Consortium for Mathematics and Its Applications

- One of 18 winners out of 7000+ teams in international math modeling competition.

First Place, Brown Math Contest for Modeling *Nov 2019*
Brown University, Dept. of Applied Math

Rewriting the Code Fellowship *Jun 2018 – Present*
Rewriting the Code

Grace Hopper Scholar *Oct 2019*
AnitaB.org

Teaching Experience

- CSCI 0170: Computer Science: An Integrated Introduction (teaching assistant, Fall 2019)
- CSCI 0040: Introduction to Scientific Computing and Problem Solving (teaching assistant, Spring 2020)
- DATA 1050: Data Engineering (teaching assistant, Fall 2020)

Outreach and Service

Undergraduate President *Jun 2020 – Present*
Association of Women in Mathematics, Brown University

Mentor *Sep 2018 – Present*
Women in Science and Engineering, Brown University

Mentor *Sep 2019 – Present*
Women in Computer Science, Brown University

Mentor *Sep 2019 – Present*
Matched Advising Program for Sophomores, Brown University

Mentor *Aug 2020 – Present*
Rewriting the Code

Head Photo Editor *Jan 2019 – Dec 2019*
Brown Daily Herald

Computer skills

Coding languages:
- Advanced: Python
- Intermediate: R, MATLAB, SQL, Julia, Java
- Beginner: C, Scala, HTML/CSS, OCaml

Additional Skills: TensorFlow 2.0, Git, Tableau, Microsoft Excel, Adobe Photoshop, LaTeX

Last updated September 2020