

Jason Fan

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EDUCATION

Tufts University, Medford MA

May 2017

B.S. in Computer Science & Mathematics, *Summa Cum Laude* - GPA: 3.88/4.00

HONORS

Class of 1942 Prize Scholarship - Tufts University

May 2017

- Awarded annually to seniors most likely to become most likely to become outstanding university teachers.

PUBLICATIONS

A Multi-Species Functional Embedding Integrating Sequence and Network Structure

Nov 2017

Max Leiserson, **Jason Fan** et al.

In submission

- Submitted to Research in Computational Molecular Biology (RECOMB) 2018, a premier conference for computational biology

EXPERIENCE

Research Assistant - University of Maryland, College Park

Sept 2017 - present

Center for Computational Bioinformatics and Computational Biology

- Worked with Prof. Max Leiserson to develop an algorithm to featurize and embed protein-protein interaction networks from different species into a functionally meaningful vector space.

Research Assistant - Tufts University

May 2017 - Aug 2017

Department of Computer Science

- Worked with Prof. Ben Hescott and Prof. Mark Crovella and applied machine learning algorithms to predict genetic interactions in yeast.

Teaching Assistant and Teaching Fellow - Tufts University

Sept 2015 - May 2017

Department of Computer Science

- Lead team of 25 teaching assistants for Tuft's Computation Theory course taught by Prof. Hescott.
- Taught weekly recitation sections and managed grading for all weekly homework submissions.

Microsoft

Summer 2016 (12 weeks)

Software Development Intern, Enterprise Cloud Group

Redmond, WA

- Built a service to customize and launch virtual machines on an internal cloud service.

Ab Initio Software

Summer 2015 (11 weeks)

Software Development Intern

Boston, MA

- Built new customer facing features for Ab Initio's process management and monitoring client.

PROJECTS

Early detection of Lung Cancer using Deep Multi-Instance networks

Spring 2017

- Adapted Deep Multi-Instance techniques for Lung Cancer detection.

Ray Traced Constructive Solid Geometry Renderer

Spring 2016

- Designed a ray tracing algorithm to express and render boolean and set operations applied to 3D shapes.

Simplifying Graph Visualizations with Force Directed Edge Bundling

Fall 2015

- Improved a physics based, iterative method to visualize and simplify complex graphs/networks by grouping edges.

Visualizing the Urbanization of the World with Wikipedia data

Spring 2015

- Created a web app to explore how humans settled around the world were established from wikipedia data.

SKILLS

Languages

Python, C/C++, JavaScript, C#, LaTeX, (Worked with: Java, HTML)

Frameworks

PyTorch, NumPy, SciPy, Scikit-Learn, Node.js

OS/Tools

Unix, Vim, Git & Github, Perforce, IntelliJ, Visual Studio, Powershell

Spoken Languages

Mandarin and Cantonese, proficient in spoken Spanish