

ANDREW HANN CHIANG

New York, NY 10036

me@andy-chiang.com

646-580-4217

QUALIFICATIONS SUMMARY

Computational scientist and software engineer with extensive experience building algorithmic, scientific, and distributed applications. Relevant training and work experience in data analysis, mathematical and statistical modeling, simulation, and scientific computing.

- *Programming*: C, C++; Python, numpy, scipy, matplotlib; R ecosystem; Matlab; Mathematica; shell
- *Scientific Computing*: Statistical computing; numerical analysis; optimization; Monte Carlo methods
- *Data analysis*: Time-series analysis; natural language processing; network analysis; data visualization
- *Modeling*: Deterministic & stochastic models; discriminative & generative models; machine learning

SCIENTIFIC & COMPUTING EXPERIENCE

Center for Computational Biology and Bioinformatics New York, NY
Computational psychiatry & neuroscience September 2013 - Present

- Built dynamical systems models of the human brain to study cognitive deficits in psychiatric disorders
- Designed a novel empirical Bayes method to quantify the effects of mutations in the human genome
- Developed network-based data mining algorithms to understand high-throughput genetics data

Institute for Biophysical Dynamics & James Franck Institute Chicago, IL
Circadian biology & computational immunology June 2012 - August 2013

- Devised and implemented novel time-series analysis algorithms to study molecular circadian rhythms
- Statistical analysis of high throughput immunology data to identify mechanisms of cell differentiation

Systems Department, McMaster-Carr Supply Company Elmhurst, IL
Software engineer: .NET framework July 2011 - June 2012

- Implemented novel combinatorial optimization algorithms for real-time content layout and presentation
- Developed statistical models to analyze user web traffic, enabling predictive content pre-caching

ACADEMIC EXPERIENCE

Department of Biomedical Informatics, Columbia University New York, NY
Teaching Assistant: Computational methods in Biomedical Informatics January 2015 – May 2015

- Taught weekly seminars on data mining and machine learning, covering theoretical and practical issues
- Developed training materials including analytical, numerical, & practical data analysis problems

EDUCATION

DePaul University Chicago, IL
M.S., Computer Science, College of Computing (GPA: 4.0) June 2013 - Present

- Phi Kappa Phi Honor Society
- Golden Key National Honor Society
- Upsilon Pi Epsilon Honor Society: Delta of Illinois

Columbia University New York, NY
M.A., Biomedical Informatics, Graduate School of Arts & Sciences (GPA: 4.2) August 2013 - October 2015

- Department of Biomedical Informatics Graduate Student Liaison
- Center for Computational Biology and Bioinformatics Graduate Fellowship

The University of Chicago Chicago, IL
B.Sc., B.A., Physical Sciences Division, The College (GPA: 3.9) September 2008 - June 2011

- Dean's List and College Honors
- Phi Beta Kappa National Honor Society: Beta of Illinois

ORGANIZATIONS & ACTIVITIES

Graduate Workers of Columbia Member September 2015 – Present
Association for Computing Machinery Member September 2013 – Present
Manhattan Yacht Club Member August 2017 - Present
Columbia University Free Weight Club Member September 2016 - Present