

# Datong Paul ZHOU

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## EDUCATION

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### University of California, Berkeley

*PhD, Mechanical Engineering*. Current GPA: 3.98/4.0

- Academic Adviser: Prof. Claire J. Tomlin (EECS)
- Award: Berkeley Fellowship for Graduate Study (top scholarship for doctoral students)
- Expertise: Machine Learning, Online Learning, Algorithms, Experimental Design, Statistical Hypothesis Testing, Data Mining, Control and System Theory, Game Theory

Berkeley, CA  
08/2014 – 05/2019

*MS, Electrical Engineering and Computer Sciences*. GPA: 4.0/4.0

- Statistical Learning Theory, Machine Learning, Stochastic Processes, System Theory

08/2015 – 05/2016

*MA, Mathematics*. Current GPA: 4.0/4.0

- Optimization, Dynamical Systems, Differential Equations, Numerical Mathematics

08/2016 – 05/2018

### Technische Universität München

*BS, Mechanical Engineering*. GPA in top 1% of class

- Focus: Computational Mechanics, Control Theory

Munich, Germany  
10/2011 – 03/2014

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## EXPERIENCE

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### University of California, Berkeley

*Graduate Student Researcher*

- Forecasted electricity consumption with Hidden Markov and Gaussian Mixture Models
- Implemented real-time HVAC control schemes to optimize buildings' energy efficiency
- Extended the Multi-Armed Bandit problem to a setting with budget constraints
- Authored 12 articles in peer-reviewed conferences (9 accepted, 3 in review)

Berkeley, CA  
08/2014 – present

### OhmConnect, Inc.

*Consultant and Subcontractor*

- Set up randomized experiments and performed A/B testing to achieve 14% treatment effect of monetary incentives on reduction in peak-hour electricity usage of 5000 users
- Validated findings with time-series analysis and regression in scikit-learn and pandas
- Used optimization algorithms to target best users to increase per-dollar yield by 40%

San Francisco, CA  
08/2015 – present

### Massachusetts Institute of Technology (MIT)

*Visiting Scholar*

- Designed human-in-the-loop control algorithms for electricity consumption models
- Modeled peer effects and social influence in networks by utilizing smart meter data
- Estimated the cost of crowdsourcing in energy systems with statistical inference

Cambridge, MA  
09/2016 – 12/2016

### University of California, Berkeley

*Teaching and Service*

- Graduate Student Instructor for EE 222: Nonlinear System Analysis (Spring 2017)
- Overseeing 3 servers (Linux Ubuntu) in the UC Berkeley EECS Department

Berkeley, CA  
01/2017 – present

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## SELECTED PUBLICATIONS

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- **D.P. Zhou** and C.J. Tomlin. [Budget-Constrained Multi-Armed Bandits with Multiple Plays](#). *Submitted to the 32<sup>nd</sup> AAAI Conference on Artificial Intelligence, 2018.*
- **D.P. Zhou**, M. Roozbehani, M.A. Dahleh, and C.J. Tomlin. [How Peer Effects Influence Energy Consumption](#). *To appear in the proceedings of the 56<sup>th</sup> IEEE Conference on Decision and Control, 2017.*
- **D.P. Zhou**, Q. Hu, and C.J. Tomlin. [Quantitative Comparison of Data-Driven and Physics-Based Models for Commercial Building HVAC Systems](#). *Proceedings of the 2017 American Control Conference.*
- **D.P. Zhou**, M. Balandat, and C.J. Tomlin. [A Bayesian Perspective on Residential Demand Response Using Smart Meter Data](#). *54<sup>th</sup> Annual Allerton Conference on Communication, Control, and Computing, 2016.*

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## SKILLS AND INTERESTS

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- Skills: Python, Java, C++, SQL, HTML, scikit-learn, pandas, patsy, Unix/Linux, MATLAB, MapReduce
- Interests: Triathlon, piano, chess