

Stephanie Tong | Data Scientist

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Experience

Data Science Fellow / Resident, Galvanize, San Francisco, CA 2016

- Taught Python, SQL, machine learning, probability, & statistics to GalvanizeU / University of New Haven students
- Conducted churn prediction, recommender engine, sales prediction, & fraud detection case studies
- Built a web crawler to scrape Craigslist Missed Connections and store in PostgreSQL database
- Applied NLP techniques (NMF, LDA, LSA) for content analysis of Craigslist Missed Connections and built a RESTful web app with interactive maps and search functionality

Design Engineer, Magnusson Klemencic Associates, Seattle, WA 2014 – 2016

- Built in-house tools for streamlined data processing from structural analysis software
- Served as one of six members on company-wide damping research expert team
- Designed & provided construction administration support on high visibility projects including Amazon Rufus 2.0 (Seattle, WA), Golden State Warriors Arena (San Francisco, CA), & 150 North Riverside (Chicago, IL)

Research / Teaching Assistant, Smart Structures Technology Laboratory, Urbana, IL 2009 – 2014

- Performed experimental validation of smart dampers as vibration control devices for large structures
- Conducted instrumentation & field tests for wireless data acquisition base stations for structural health monitoring
- Performed design & experimental validation of tracking control schemes for real-time hybrid-testing
- Taught undergraduate (65 students) and graduate (35 students) courses
- Coordinated annual research retreat (50 participants)

Researcher / Engineering Intern 2009 – 2013

- National Taiwan University, Taipei, Taiwan (2013): Designed a highly responsive control system for the National Center for Research on Earthquake Engineering's "shake table" to enable accurate earthquake experimentation and testing
- Willmer Engineering Inc., Atlanta, GA (2011): Wrote technical manuscripts and provided copyediting support for geotechnical engineering and environmental engineering projects
- Lehigh University, Bethlehem, PA (2010): Performed the first hybrid-test of a 9-story structure. Implemented a parallelized scheme in MATLAB for hybrid-testing of complex structural systems
- University of Texas at Arlington, Arlington, TX (2009): Performed numerical analysis (finite element analysis) of the human eye to relate squinting to optical power gains

Skills

- Programming and databases: MATLAB & Simulink, Python, R, SQL, PostgreSQL, MongoDB, Flask, Shiny
- Analysis: Regression, A/B Testing, Decision Trees, SVMs, Clustering, Recommenders, NLP, Graphs
- Distributed Computing: AWS, MapReduce, Spark

Education

Galvanize 2016

Data Science Immersive (3-month program)

Johns Hopkins University / Coursera 2016

Data Science Specialization (9-month program)

University of Illinois at Urbana-Champaign 2012 – 2014

M.S., Civil and Environmental Engineering 3.44/4.00

University of Illinois at Urbana-Champaign 2008 – 2012

B.S., Civil and Environmental Engineering 3.83/4.00