Grace Tang

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Data scientist | Python engineer | Hackathon enthusiast | Neuroeconomist

EXPERIENCE

Uber - *Data scientist II, Uber Labs*
September 2016 - Present
- Oversaw the planning and analysis of over **200 experiments**.
- Created **internal statistical tools** and resources used by ops teams worldwide
- **Behavioral science** POC for APAC: Led first regional behavioral science workshop, partnered with various teams to run behavioral science experiments and deep-dive analyses
- **Uber Eats** research & development
    - Initiated and led a team of 8 to build an **automated restaurant dispatch radius tool** (optimized for reliability of delivery).
    - Led cross-team **qualitative and quantitative investigation of user experience** at various stages of the lifecycle
    - Investigated food delivery usage patterns for various use cases e.g. weekday lunch, health goals
    - **Recommended interventions and conducted experiments to increase conversion / retention / reliability**, and to test various dispatch radii optimization models.

99.co - *Data scientist / backend engineer*
September 2014 - September 2016
As the 11th employee and first data scientist in a rapidly-growing startup, I took on numerous roles, and had the opportunity to independently plan, manage, and execute a wide range of projects across various teams over two years.

- Planned and executed numerous features, including:
    - A **search-ranking algorithm** for property listings,
    - User/Content-based **recommendation engines** (accounted for more than 5% daily pageviews)
    - **Outlier, duplicate, and undesired image detection** (detected about 300 inaccurate listings a day)
    - A system for **scheduled emails** e.g. new unit alerts, weekly recommendations.

- - A prototype for a consumer-facing development review site.
  - Built and maintained various other **backend microservices**: Metadata (e.g. when user was last seen online), developments, and analytics.
- **Data engineering**:
  - Researched, evaluated, and implemented the use of **Kinesis** for communication between certain microservices.
  - Researched and implemented new **ETL pipeline**, **data warehouse, and visualization layer.**
- **A/B experiments** - determined optimal search filter design and default sort order.
- Maintained **business intelligence dashboard**, perform ad hoc queries for business team, and created scheduled recurring reports.
- Mentored 3 team members in the use of Python, Linux, Git, MongoDB, Supervisor, tmux, AWS.

Confidential Technology Company (900 employees)

2013 - 2014

- Collaborated with two other Stanford researchers to determine **predictors of employee performance**, and develop new techniques to assess potential hires.

Stanford Alumni Association

2013

- Analyzed SAA social media data to make recommendations to **increase alumni engagement.**
- Assessed **effectiveness of donation solicitation methods** to increase donor conversion among alumni.

SKILLS

Data Science / Programming

- Python, R, Matlab
- Machine learning, statistical modeling, signal and image processing
- Web: HTML5 / CSS3 / Javascript, Python frameworks such as Django, Flask, Tornado

Research

- Experimental and survey design, statistical analysis
- Behavioral science / Neuroeconomics

Product Management

- Independently planned and implemented numerous features in a startup environment, managing stakeholders from C-suite to customer support.

RESEARCH EXPERIENCE

Decision Neuroscience Lab, Stanford University

2009 - 2014

- Used machine learning on large fMRI datasets to determine factors that drive the perception of pleasantness in olfactory stimuli, and effects on risk-taking behavior.
- Investigated the effects of brain-region-specific GABA (neurotransmitter) levels on decision-making.
- Developing open source tools to analyze Magnetic Resonance Spectroscopy data.

Cognitive Neuroscience Lab, Duke-NUS Graduate School of Medicine

- Studied cognitive effects of sleep deprivation using fMRI.

Genome Institute of Singapore

- Constructed protein interactome map of BAPX1 in zebrafish.

OTHER EXPERIENCE

Computer TA - Stanford Psychology Department

Provided software and hardware support to the Psychology department, constructed websites for faculty, courses, a department-wide teaching wiki and lab-specific wiki.

Stanford Computer Forum

Assisted with and evaluated technical talks by industry partners.

TEACHING EXPERIENCE

- Stanford University : Human Neuroimaging (Psych 204A), Web applications (CS 142), Matlab and PsychToolBox for the Behavioral Sciences (Psych 233), Intro Psychology (Psych 1)
- General Assembly : "What is Data Science?"

EDUCATION

Stanford University - *PhD, Neuroscience,* **2014**
University of Wisconsin, Madison - *BSc, Biology (Neuroscience),* **2007**

MEDIA

- [Interview with HerSaga](), HerSaga, 1 October 2017

- [From Doctorate to Data Science](#), Nature Jobs, 21 July 2017
- [3 Immutable Qualities of Successful Data Science](#), Campaign Asia,
- [Data-driven points of view: Tripadvisor, Spotify, Uber and DigitasLBi on data](#), The Drum, June 20 2017

PUBLICATIONS / INVITED TALKS

Journal Articles

Tang, G.S., Van den Bos, W., Andrade, E.B., McClure, S.M. (2012). Social anxiety modulates risk sensitivity through activity in the anterior insula. Frontiers in Decision Neuroscience 5: 142.

Conference Presentations

- Multiple Determinants of Pleasantness in Olfactory Stimuli, *Neuroeconomics 2012*
- Scents and Sensibility: Dimensionality Reduction on Neural and Behavioral Responses to Aromas, *Google PhD Summit 2013*
- A Computational Neuroscience Approach to Identifying Drivers of Subjective Pleasantness in Olfactory Stimuli, *Society for Neuroscience 2013*
- A Role for Striatal GABA in Human Action Selection, *Association for Psychological Science, 2014*
- Creating Map Visualizations with Open Data and Folium, *PyCon 2016*
- Keynote: Why We Will Not Bow to Our Computer Overlords (Just Yet), *DigitasLBi NewFront 2017*
- Turning Fails into Wins - Best practices in experimentation, *Strata Data Conference 2017*

Panel Discussions
- Data Science at Uber, *DataScienceSG*
- Future Ready, *Microsoft DigiGirlz*
- Your Analytics Career - The Next Stage, *Uber APACx Analytics & Insights*
- Learning to Love Data, *DigitasLBi NewFront 2017*
- How to Prepare For a Tech Talk, *Women Who Code*

EXTRA-CIRRICULAR

Hackathons - Won awards at 9 hackathons in the past 5 years.
Science Fiction - 5 publications in Nature Futures Sci-fi column.