

# JOSEPH TIANKANG XIE

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## EDUCATION

2018-present	<b>DARTMOUTH COLLEGE</b> <i>PhD Candidate in Quantitative Biomedical Sciences Department</i>	Hanover, NH
2014-2018	<b>UNIVERSITY OF WISCONSIN - MADISON</b> <i>Bachelor of Sciences in Mathematics &amp; Statistics; Certificate in Computer Sciences. GPA: 3.93/4.0</i> <ul style="list-style-type: none"><li>▪ Graduated with Distinction (equivalent to <i>summa cum laude</i>)</li><li>▪ Phi Beta Kappa</li></ul>	Madison, WI

## EXPERIENCE

2018-present	<b>DARTMOUTH-HITCHCOCK MEDICAL CENTER</b> <i>Statistician consultant and Research Assistant, working with Dr. Krzysztof A Bujarski</i> Python R Mixed Effects Modeling Consulting <ul style="list-style-type: none"><li>▪ Assisting clinicians in forming hypotheses, designing efficient experiments, collecting patient data, conducting interpretable and reasonable statistical analysis (mostly mixed effects modeling). Responsibility also includes explaining the methodologies and results in clinicians' meetings</li><li>▪ Wrote both methodology and result sections for multiple submitted papers on clinical neurology</li><li>▪ Key personnel for statistical analysis for a pending R21 grant on clinical neurology</li></ul>	Hanover, NH
2019-present	<b>DARTMOUTH GRADUATE CONSULTING GROUP</b> <i>Project member and programmer</i> Consulting Marketing Sales Data Analytics Object Detection Interactive Web Design <ul style="list-style-type: none"><li>▪ Installed a camera for a local kitchenware retail store and used object detection algorithm (YOLO) on the recordings to analyze the customer traffic by time, day, and month</li><li>▪ Analyzed point of sales data to find the sales information for items in the kitchenware store each month, made an interactive R shiny app for the sales data to help the store owner constantly place the best-sellers in the salient positions in the store</li><li>▪ Achieved 6.1% increase in revenue and 10% increase in transactions YoY compared to last year</li></ul>	Hanover, NH
2019-present	<b>COMPUTATIONAL SOCIAL AND AFFECTIVE NEUROSCIENCE LAB</b> <i>Graduate Student Researcher PI: Dr. Luke J Chang</i> <i>Thesis: Multi-modal evaluation of affective states</i> Python R Tableau SQL Time series analysis State-space models Face Recognition Computer Vision <ul style="list-style-type: none"><li>▪ Developing machine learning/deep Learning models for emotion recognition. Developed a Python Package (py-feat) to enable open-source, state-of-the-art and fast facial feature extraction including emotion recognition, action unit detection, landmark detection and facial bounding box detection.</li><li>▪ Collect, combine and analyze a multi-modal affective dataset including facial expressions, self-reports and heart rate, fMRI and EEG to infer the neural representation of affective status.</li></ul>	Hanover, NH

## AWARDS, FELLOWSHIPS AND ACTIVITIES

2020,'21,'22	<b>BURROUGHS WELLCOME FUND FELLOWSHIP</b> <ul style="list-style-type: none"><li>▪ Awarded to graduate students who developed innovative and multi-disciplinary research projects in computational and experimental sciences. (4 selected out of 40 PhD applicants across 3 departments)</li></ul>	Hanover, NH
2018,'19	<b>DARTMOUTH FELLOWSHIP</b> <ul style="list-style-type: none"><li>▪ Awarded to first year PhD students with excellent progress in both coursework and research</li></ul>	Hanover, NH
2019,'20	<b>ACADEMIC CONFERENCES</b> <i>Abstracts and Poster Presentations</i> <ul style="list-style-type: none"><li>▪ Human Brain Mapping, Society of Affective Neuroscience, Society of Affective Sciences</li></ul>	Various Locations
2019-present	<b>TEACHING &amp; MENTORING</b> <ul style="list-style-type: none"><li>▪ Graduate teaching assistant to several graduate-level statistics classes, answered questions about class/homework and developed coding tutorials</li><li>▪ Currently mentoring the research project for a Dartmouth Master's student (Oliver Liu)</li></ul>	Hanover, NH

## SOFTWARE SKILLS

Python (proficient), R (proficient), Java (proficient), Tableau , SQL (proficient) & Hadoop