Alyssa Danielle Jones

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210-606-8997

EDUCATION

The University of Texas at Austin, Austin, Texas
Bachelor of Science, Mathematics: Mathematical Sciences, Probability, Statistics, and Data Analysis, August 2018 Major GPA: 3.05

SKILLS AND RELEVANT COURSEWORK

Technical skills: Python, SQL, Postgres, BigQuery, Tableau, R, LaTeX, RadarFigure, QGIS

Coursework: Intro to Databases, Elements of Software Design, Mathematical Statistics, Bayesian Statistics, Stochastic Processes, Applied Statistics, Probability, Elements of Computer Science, Generalized Linear Models, Real Analysis, Risk Management, Financial Mathematics.

EMPLOYMENT

Laboratory Technician Institute for Geophysics
June 2016 - May 2018 Austin, TX

- Developed efficient machine learning algorithm for automated subglacial lake detection.
- Processed and cleaned ice-sounding radar data.
- Identified regions of potential hydrological activity using GIS software.

Undergraduate Research Assistant Institute for Geophysics
February 2010 - June 2016 Austin, TX

- Tracked ice layers and measured thickness of the Antarctic ice sheet for NASA and NSF funded projects.
- Trained visiting research scientists and incoming students to use geophysical mapping software.

Research Assistant Laboratory for the Study of Anxiety Disorders
October 2010 - January 2012 Austin, TX

- Oversaw health and wellness checks of laboratory animals.
- Collected skin conductivity and heart rate data from patients undergoing exposure therapy for spider and snake phobias.

PUBLICATIONS

Jones, A., Tansey, W., Greenbaum, J., Scott, J., Blankenship, D. *Subglacial lake detection via a discrete autoregressive change point analysis.* 2017 Joint Statistical Meetings, Baltimore, Maryland.

Young, D., Powell, E., Richter, T., Greenbaum, J., Gutowski, G., Greene, C., Ng, G., Kempf, S., Quartini, E., **Jones, A.**, Rosales, A., Blankenship, D. *Deep troughs dissect the Marie Byrd Land subglacial highland: Initial results of the GIMBLE survey.* 2013 WAIS Workshop, Sterling, Virginia.

PROJECTS

Automated Ice Sheet Boundary Detection in Radar Images:
`github.com/AlyssaYelle/auto-piking` *Python, Scikitlearn, Numpy, Scipy*

A Tutorial on Random Processes: `github.com/AlyssaYelle/StochasticProcesses`
R, Python, Numpy, Pandas, Matplotlib

Visualizing Austin Housing Rentals Over Time:
`github.com/AlyssaYelle/RentalsDatabase` *SQL, Postgres, BigQuery, Python, Dataflow, Apache Beam, Tableau*