Ryan C. Theisen

Education

Spring 2017 **B.S. Mathematics**, *Arizona State University*, Tempe, Arizona, *GPA: 4.0*.

B.S. Economics, *Arizona State University*, Tempe, Arizona, *GPA: 4.0*.

Dean's List (All Semesters)

President's Scholar

Honors Thesis: *Indexing the Accessibility of US Cities for the Physically Disabled*

Awards and Honors

Summer 2014 **Fulbright Scholarship**, *UK Summer Institute for Young American Student Leaders*, University of Bristol, England.

Awarded highly competitive scholarship to study and increase awareness between British and American cultures. Traveled to the United Kingdom fully funded to study the history and legacy of the trans-Atlantic slave system. Conducted research and completed project on trade within West Africa during the mid-eighteenth century.

2016 **J.P. Morgan Chase Scholar**, *Arizona State University*, Department of Economics.

Awarded prestigious fellowship for top economics undergraduates. Granted stipend and recognized at 53rd annual ASU/JP Morgan Chase Economic Forecast Luncheon in front of over 1,100 business and civic leaders.

Experience

Professional

2016–Present **Amazon.com**, *Data Analyst*, Tempe, AZ (Remote).

Implemented and analyzed experiments for process improvement throughout the Customer Service network. Designed Amazon's first variable compensation scheme for Customer Service agents, using dynamic wages to target performance metrics and mitigate employee attrition rates. Developed responsive chat bot in Python to respond to common and predictable agent inquiries.

2016–Present **The Luminosity Lab**, *Researcher*, Arizona State University.

Work on team of top graduate and undergraduate students to design and develop new technologies to improve the student experience and continue ASU's tradition of innovation. Work with top hardware and software engineers, data analysts and students of other fields to develop and deploy products. Projects include building an interactive data map using D3.js for the 2017 ASU GSV Summit, developing a dynamic ranking algorithm for the competition website Mindspark.io, and developing scheduling algorithms for various drone applications.

Summer 2016 **Amazon.com**, *Operations Intern*, Seattle, WA.

Worked on project to hire remote, unscheduled associates for temporally variant spikes in customer service calls. Used various statistical techniques to develop predictive models for flexibility in the customer service network. Regularly worked with data sets of millions of entries, querying using SQL.

2014–Present **Department of Economics**, *Teaching Assistant*, Arizona State University.

Wrote original material and taught weekly recitation sections covering topics in Intermediate Microeconomics. Held lab sessions of supplemental instruction for students in Principles of Microeconomics, often covering material for audiences of over 40 students.

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Fall 2015 **Apriva**, *Statistical Analyst*, Scottsdale, AZ.
Served as company's only statistical analyst, using a number of techniques to analyze business performance. Created index of client businesses' performance using principal component analysis from consumer transaction data.

Research

Summer 2015 **NSF Research Experience for Undergraduates - MCTP**, *Undergraduate Research Assistant*, Arizona State University.
Awarded stipend of $5,000 as a part of National Science Foundation grant for research in applied mathematics. Constructed differential equation model of attraction-repulsion-alignment system for biological applications and proved original theorem regarding convergence of system to stationary-state solution. Presented working paper at Joint Mathematics Meetings in Seattle, January 2016. Paper submitted for publication.

2016–Present **Honors Thesis**, *Indexing the Accessibility of US Cities for the Physically Disabled*, Arizona State University, Director: Rodolfo Espino.
Working to generate first index to be used to determine relative accessibility of US cities for the physically disabled. Using a number of dimension-reduction techniques, including Factor Analysis and Principal Component Analysis.

Other

2016 **Lambda Chi Alpha Fraternity - Zeta Psi Chapter**, *President*, Arizona State University.
Elected to lead chapter of over one hundred members and manage a budget of more than $150,000 annually. Personally organized two philanthropy events: one benefiting cancer research, raising over $5,000 in inaugural year, the other raising over 100,000lbs of food for a local food bank. Worked directly with other student leaders and the University to program philanthropic and social events.

2012–Present **Kino Border Initiative**, *Volunteer / Group Founder*, Nogales, Mexico.
Founded club that leads student groups to Nogales, Mexico to educate them on immigration-related issues. Taught seminar on immigration and income inequality at annual Summit on Human Dignity at local high school.

Advanced Coursework

Mathematics and Statistics

MAT 570: Real Analysis I (Graduate Level). Text: Real Analysis by Folland, Professor John Spielberg, Grade Received: A

MAT 571: Real Analysis II (Graduate Level). Text: Real Analysis by Folland, Professor John Spielberg, Grade Received: Spring 2017

APM 570: Applied Linear Operators (Graduate Level). Text: Introduction to Hilbert Spaces with Applications by Debnath, Professor Hendrik Kuiper, Grade Received: Spring 2017

PHY 576: Quantum Theory (Graduate Level). Text: Modern Quantum Mechanics by Sakurai, Professor Maulik Parikh, Grade Received: Spring 2017

APM 504: Applied Probability and Stochastic Processes (Graduate Level). Text: Instructor-written notes, Professor Nicolas Lanchier, Grade Received: A-

STP 532: Applied Nonparametric Statistics (Graduate Level). Text: Nonparametric Statistical Methods by Hollander, Wolf and Chicken; Introduction to the Bootstrap by Efron, Professor Mark Reiser, Grade Received: A

STP 533: Applied Multivariate Analysis (Graduate Level). Text: Applied Multivariate Statistical Analysis by Johnson and Wichern, Professor Mark Reiser, Grade Received: Spring 2017

MAT 410: Introduction to General Topology. Text: Topology by Munkres, Professor Matthias Kawski, Grade Received: A+

MAT 371: Advanced Calculus (Intro Analysis). Text: Introduction to Analysis by Gaughan, Professor Hendrik Kuiper, Grade Received: A

MAT 343: Applied Linear Algebra. Text: Linear Algebra with Applications by Leon, Professor Mohamed Moustaoui, Grade Received: A

STP 421: Probability. Text: A First Course in Probability by Ross, Professor Nicolas Lanchier, Grade Received: A+

Economics

ECN 413: Advanced Honors Macroeconomics. Text: Instructor-written notes, Professor Edward Prescott, Grade Received: A+

ECN 414: Advanced Honors Microeconomics. Text: Incentives: Motivation and the Economics of Information by Campbell, Professor Ed Schlee, Grade Received: A

ECN 425: Econometrics. Text: Introduction to Econometrics by Stock and Watson, Professor Seung Ahn, Grade Received: A

ECN 313: Intermediate Macroeconomics. Text: Instructor-written notes, Professor Natalia Kovrijnykh, Grade Received: A

ECN 312: Intermediate Microeconomics. Text: Price Theory and Applications by Landsburg, Professor Ed Schlee, Grade Received: A+

Conferences

January 2016 **Joint Mathematics Meetings**, *A Model of Flocking in Three Zones*, Seattle, WA, References: 1116-VC-2224, 1116-VC-2741.

Papers

Submitted Motsch, S., Reamy, A., Theisen, R., Stokes, M.; *Asymptotic Flocking for the Three-Zone Model.*

Working Paper Theisen, R., Helms, T.; *Indexing the Accessibility of US Cities for the Physically Disabled.*

Skills

Skilled Python, R, LaTeX

Intermediate SQL, MATLAB, HTML, CSS, Javascript, D3.js, Spanish

Basic Java, C++

Interests

Green Bay Packers, Mountaineering, Rock Climbing, Golf, Arsenal FC, The West Wing, Monetary Economics