

# Michael Kelly, Ph.D.

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## Professional Summary

Strategically driven, detail oriented data professional with expertise in reporting, analysis, and optimization. Saved companies many working hours and thousands of dollars per month through insights and contributions. Always willing to learn, others focused, and results driven.

## Experience

### Jan 2022 - **Data Analyst at Maas Energy Works**

Current *Remote*

- Developed a Python script that runs daily, checks for data anomalies, sends emails and Slack messages to stakeholders, and save the Operations team around 50 hours of work per year.
- Created a Power BI dashboard that displays the last time data has been pulled into databases that is used by multiple teams daily.
- Created an app using Python, pysimplegui, and autopytoexe that is used by other teams to pull data and information from the databases.
- Set up new databases using SQL and Python.
- Fixed and maintained dashboards used by operators used to run digester equipment and communicate profits to stakeholders.

### July 2018 - **Digital Marketing Analyst at Sunfish Cellars**

Jan 2022 *Mendota Heights, MN / Remote*

- Created a webpage and SQL database to collect customer interests and contact information.
- Assessed marketing campaigns of 3 companies selling over 3,000 products using Python, Google Tag Manager, Google Analytics, and Shopify.
- Programmed order form functionality into the Shopify website saving the owner \$2,000 per month and allowing the company to offer online ordering.
- Improved SEO by building landing pages, fixing website issues, and optimizing for keywords.
- Used Python and Jupyter Notebook to clean, monitor, transfer, and analyze data of over 700 wines.

### May 2016 - **Curriculum Designer at IXL Learning**

Nov 2017 *San Mateo, CA / Remote*

- Wrote software specs used to build content that has been used by over 6,000,000 students.
- Designed a highly requested diagnostic engine used to determine a student's mathematical ability.
- Won internal awards for subversion documentation and multi-disciplinary subject material.

### July 2013 - **Assistant Professor of Mathematics at Simpson University**

May 2016 *Redding, CA*

- Department chair from January 2015 to May 2016.
- Taught 16 math courses to undergraduate students mostly at the junior and senior level.
- Created an educational game with students that resulted in a contract from Steam Greenlight.

### July 2012 - **Postdoc at the University of Minnesota**

June 2013 *Minneapolis, MN*

- Taught a Master's level stochastic processes course.
- Contributed to research of a mathematical model of Imatinib and its effectiveness as a treatment for leukemia.

## Education

Sept 2009 - **Ph.D. in Mathematics at U.C. San Diego**  
June 2012 *La Jolla, CA*

- Wrote a dissertation that analyzes two finite population models with evolutionary dynamics that represent cancer development.
- Presented research at Georgia Tech, University of British Columbia, University of California - Irvine, The 8th World Congress of Probability in Istanbul, Turkey, and Duke University.

Sept 2007 - **Master's in Mathematics at U.C. San Diego**  
June 2009 *La Jolla, CA*

- Passed qualifying exams in Algebraic Topology, Real Analysis, and Complex Analysis.

Aug 2003 - **Bachelor's in Mathematics at Oklahoma State University**  
May 2007 *Stillwater, OK*

- GPA: 3.85. Graduated with honors.
- Wrote a senior honors thesis in abstract algebra relating group automorphisms to the Riemann zeta function.
- Published a paper in the Rose Hulman Undergraduate Math Journal as a result of research done with Alexandru Hening a Research Experience for Undergraduates at Central Michigan University.

## Publications

**Upper Bound On The Rate of Adaptation In An Asexual Population.** Annals of Applied Probability, 44:4 1377-1408. 2012.

**A Hierarchical Probability Model of Colon Cancer.** Advances in Applied Probability, 44:4 1052-1083. 2012.

**On Polya's Orchard Problem.** Rose Hulman Undergraduate Math Journal, 7:2. Co-Authored with Alexandru Hening. 2006.

## Courses and Certifications

**Dev Master's Data Science Bootcamp.** Introduction to Jupyter Notebook and fundamental machine learning algorithms.

**Google Shopping Certification.** Ran Google Shopping ads for over 1,000 wines.

**Google Ads Search Certification.** Applied knowledge to manage search engine campaigns.

**School of Motion Design Bootcamp.** Used knowledge and skills in creation of ads and marketing material.

**School of Motion After Effects Kickstart.** Animated logos for two companies.