

# Lisa Kirch

Senior Data Scientist • 415.350.9266 • [lkirch@ischool.berkeley.edu](mailto:lkirch@ischool.berkeley.edu) • <https://www.linkedin.com/in/lkirch>

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## Professional Experience

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**USAA**, Jacksonville, FL

**Senior Data Scientist, Lead Business Strategy Analyst**

January 2020 – present

- Applied k-Means clustering to uncover factors driving attrition, enabling hyper-personalized customer engagement strategies
- Developed XGBoost multiclass classification model to accurately determine payee types for optimized collection purposes
- Created a proof of concept using LSTM networks to enhance contact optimization and improve communication strategies
- Enhanced consumer lending sales funnel performance using decision trees, clustering and segmentation techniques
- Analyzed credit card transaction trends to detect fraudulent activities and identify cross-selling opportunities
- Applied natural language processing (NLP) techniques to categorize and summarize complaints, providing valuable business context for more informed decision-making.
- Modernized legacy forecasting by designing and implementing automated decisioning, pricing, and optimization techniques using quantitative and machine learning, improving business agility and delivering actionable insights to senior leaders
- Led teams and collaborated across departments to develop data-driven solutions and implement best practices in data science and machine learning operations
- Mentored junior data scientists, contribute to best practices and knowledge-sharing efforts, and foster community
- Participated in hackathons to drive innovation and enhance the customer experience through creative problem-solving and new technology applications
- Acted as director proxy when needed, overseeing strategic initiatives

**Citi**, Jacksonville, FL

**Data Scientist**

September 2016 – January 2020

Internal consultant on data science, machine learning, and visual story telling for Global Consumer Technology. Developed new products to conserve resources and find new business revenue. Evaluated new technology. Advised mentees and trained colleagues in data science and machine learning.

**Business Wire, A Berkshire Hathaway Company**, San Francisco, CA

**Software Engineer**

April 2005 – December 2007

Developed and maintained highly available systems to process financial data simultaneously in multiple languages to multiple endpoints to support international financial filings and press releases.

**Charles Schwab & Co., Inc.**, San Francisco, CA

**Software Engineer**

July 2000 to November 2004

Developed multiple self-service corporate tools. Created, tested, deployed, and maintained web applications and middleware application programming interfaces (APIs) to support Schwab's financial offerings. Led a team of 2-4 Java developers.

**Providian Financial, Inc.**, San Francisco, CA

**Senior Programmer Analyst/Web Developer**

March 1998 – July 2000

Developed an E-Commerce credit card customer service web site for Providian's 10 million customers. Evaluated vendors, gathered functional specifications to develop use cases, and coordinated the developers.

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**Cornerstone Research, Inc.**, Menlo Park, CA

**Analyst**

May 1997 – February 1998

Applied analytical, quantitative, and programming skills to provide insightful, innovative solutions tailored to Fortune 500 clients' commercial litigation needs.

**Board of Governors of the Federal Reserve System**, Washington, DC

**Research Assistant**

May 1994 – March 1997

Provided timely economic reports and analysis to the Board of Governors of the Federal Reserve System in support of Federal Open Market Committee (FOMC) meetings, Thrift Institution Advisory Council (TIAC) meetings, Federal Reserve Bulletin articles, and the Chairman's testimony to the Senate and House Committees on Financial Services.

## Technical Proficiencies

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**Machine Learning Algorithms:** Supervised and Unsupervised Learning, Anomaly Detection, Natural Language Processing (NLP), Entity and Relationship Extraction, Topic Modeling, Document Classification and Summarization, Object and Pattern Recognition, Neural Networks, Reinforcement Learning, Transfer Learning, Deep Learning

**Programming Languages and Frameworks:** Python, R, SQL, TensorFlow, Keras, PyTorch, tidyverse, networkx, OpenCV, LangChain

**Soft Skills:** Mentoring, Coaching, Storytelling, Community Building

## Certifications

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[Practical Data Science Specialization](#) – AWS and DeepLearning.AI

[AWS Cloud Technical Essentials](#) - AWS

[DeepLearning.AI TensorFlow Developer](#) and [DeepLearning](#) – DeepLearning.AI

## Education

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- Master of Information and Data Science, UC Berkeley School of Information, Berkeley, CA
- Graduate study in Econometrics, George Washington University, Washington, DC
- B.A., Mathematics, Stockton University, Pomona, NJ
- Graduate study in Economics, Rutgers University, New Brunswick, NJ
- B.A., Economics, Drew University, Madison, NJ

## Data Science Projects

<https://lisa-kirch.squarespace.com/>

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- [uConserve Dashboard](#)
- [Large-scale Machine Learning and Statistical Analysis of Dark Matter Halos Using Apache Spark](#)
- [The Ethics, Privacy, and Legal Issues around the Internet of Things](#)
- [Field Experiment: Spritz Speed Reading Technology: Helpful, But Not Immediately](#)
- [MyBestHospital.com](#)
- [Correlating Stock Prices with Predictions from Twitter](#)
- [Research Design Case Study: The Ford Motor Company and Autonomous Car Adoption](#)
- [Using Data to Identify VC Appropriate Companies Before VCs](#)