

# KATE SPITZER

Fullerton, CA 92835

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LinkedIn: <https://linkedin.com/in/kate-spitzer> | GitHub: <https://github.com/kmspitzer>

Portfolio: <https://kmspitzer.github.io>

## SUMMARY

Software Engineer/Data Analyst with a certificate in Data Science and Visualization from UCSD, a Bachelor of Science in Computer Science and 20 years of software engineering experience. Skilled in Python, SQL, Web Front End, JavaScript and various visualization interfaces. Strengths include creative problem-solving, recognizing and bridging gaps in understanding, and producing a high-quality product. Looking to launch a career transforming data into creative business insights for companies with big ideas.

## TECHNICAL SKILLS

**Tools:** Tableau, Excel, Python, Javascript, Pandas, Matplotlib, SQLAlchemy, Web Front End, D3, Plotly, Flask, Leaflet, JSON, Splinter, Requests, Beautiful Soup, ETL, Machine Learning

**Databases:** Oracle, PostgreSQL, MongoDB

## PROJECTS

**Wine Quality Prediction** | <https://ucsd-winequality.herokuapp.com>

- 4-person project using the UCI machine learning wine quality dataset to create an interactive app for prospective winemakers to test expected wine quality based on physicochemical components.
- Responsible for web development, machine learning modeling, machine learning documentation, interactive prediction functionality.
- Javascript, Plotly, Flask, HTML/CSS

**Interactive Earthquake Activity Map** | <https://kmspitzer.github.io/USGS-Earthquake-Map/Leaflet-Step-2/>

- Interactive map of the last 30 days of earthquake activity using current USGS data.
- Responsible for all functionality.
- Javascript, D3, geoJSON API, Leaflet, Mapbox, HTML/CSS

**Interactive US Census Plot** | <https://kmspitzer.github.io/Plotly-Dashboard/>

- Interactive scatter plot with multiple, changeable axes comparing health risk factors.
- Responsible for all functionality
- Javascript, D3, HTML/CSS

**Belly Button Diversity Dashboard** | [https://kmspitzer.github.io/Multi-axis-Census-Plot/D3\\_data\\_journalism/](https://kmspitzer.github.io/Multi-axis-Census-Plot/D3_data_journalism/)

- Interactive dashboard visualizing subject data from a study looking into bacteria types present in navel samples.
- Responsible for all functionality
- Javascript, Plotly, D3, HTML/CSS

## RELEVANT EXPERIENCE

**SENIOR SOFTWARE ENGINEER, Remote**  
**AT&T Network Services Division/IBM**  
1988 - 2005

Somerset, NJ

### *Key Accomplishments:*

- Responsible for end-to-end design and implementation of Network Number Manager software application to control allocation of critical network number assignment, preventing unauthorized upstream access by numerous legacy systems.
- Mobilized and oversaw a team of 5 developers to complete design, documentation, development, testing and deployment of Network Number Manager on-time, without defects, and with highest quality.
- Operated as Subject Matter Expert in the negotiation and authoring of Interface Agreements between internal organizations, creating connections between new and legacy applications, ensuring data integrity while bridging gaps and maintaining communication channels for critical data sharing.
- Implemented complex and critical backend functionality in support of release after release of the Software Defined Network, allowing customers to build custom VPNs, consistently delivering the highest quality product, defect-free, ahead of schedule.

## OTHER EXPERIENCE

**PRESIDENT, NON-PROFIT**  
**Troy Support Organization**  
2011-2013

Fullerton, CA

### *Key Accomplishments:*

- Chaired a group of 8 volunteer board members to allocate funds in support of staff and students at Troy High School.
- Instituted an internal grant program to allow teachers to request funds for creative projects as well as classroom necessities.
- Overhauled bookkeeping system to better track funds and release monies tied up in defunct accounts.
- Acted as liaison between school and donors.
- Spearheaded the production of a video email outreach campaign.
- Organized events with students and their mentors, culminating in a student-led technology fair.

**LONG TERM SUBSTITUTE MATH TEACHER**  
**Fullerton School District**  
2006

Fullerton, CA

### *Key Accomplishments:*

- Instructed Middle School Mathematics to 6<sup>th</sup> and 7<sup>th</sup> graders, designing and differentiating learning for 7 distinct groups of students in 5 50-minute class periods per day.
- Qualified advanced 7<sup>th</sup> graders for geometry at the high school level as 8<sup>th</sup> graders.

## EDUCATION

**Data Science and Visualization Certificate: University of California, San Diego**

A 24-week intensive program focused on gaining technical programming skills in Excel, VBA, Python, R, JavaScript, SQL Databases, Tableau, Big Data, and Machine Learning

**Bachelor of Science, Computer and Information Science: New Jersey Institute of Technology, Newark, NJ**