

# NATHAN DIEKEMA

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## Summary

Excellent at asking the right questions to derive actionable insights in a fast-paced environment. Proficient problem-solver, out-of-the box thinker, and dependable team member with strong technical skills. Enthusiastic about learning new skills and growing as a professional.

## Key Competencies

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- Programming | Python, R, SQL, C, Java, HTML
- Machine Learning | Sklearn, Tensorflow, Keras
- Data Processing | NumPy, SciPy, Pandas, tidyverse
- Web Scraping | BeautifulSoup, rvest, NLP
- Statistics | Econometrics, Forecasting, Excel, R
- Data Analysis | EDA, Visualization, Communication
- Data Management | MySQL, Snowflake, MongoDB
- Visualization | Tableau, Matplotlib, ggplot2
- Market Research | A/B testing, Segmentation
- Collaboration | Storytelling, Teamwork, Git, Palantir

## Education

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### **M.S. Data Analytics - California Polytechnic State University, San Luis Obispo** [June 2022]

- Relevant Coursework – Econometrics, Cloud Computing, Data Management, Data Mining, Machine Learning
- Cumulative GPA: 4.0; Academic Honors (top 10% of graduating class)
- Certifications: AWS Cloud Practitioner Badge, AWS Machine Learning Course Certificate

### **B.S. Electrical Engineering - California Polytechnic State University, San Luis Obispo** [June 2021]

- Minor in **Computer Science**
- Relevant Coursework – Data Structures, Continuous & Discrete Signals, Computer Vision, Neural Networks
- Major GPA: 3.75; 6-time Dean's list recipient
- Involvement: Electrical Engineering Freshman Mentor, Design Lead for Engineers Without Borders

## Work Experience

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### **Data Science Intern | Netflix** [Mar. 2022 – June 2022]

- Web-scraped external data on over 3.4 million apps from both the App Store and Google Play Store
- Trained a linear regression model to help identify important trends in the mobile gaming market
- Cleaned and derived a table of aggregate variables from 7.6 million rows of internal customer data using SQL and then utilized PCA and k-means to form distinct customer segments
- Combined external and internal findings to formulate actionable recommendations

### **Data Science Intern | AT&T** [Jan. 2022 - Mar. 2022]

- Utilized PySpark and SQL to clean, wrangle, and analyze hundreds of GB worth of customer data
- Developed models, examined trends, and extracted key insights to map the typical customer journey
- Segmented over 250 million customers into 7 distinct segments using K-modes, resulting in the ability to derive more personalized retention strategies, potentially reducing churn for "at-risk" customers
- Derived a customer-centric segmentation strategy and synthesized final results and business recommendations into a concise report (5 pages, 42-page appendix) and presentation (10 min)

## University Projects

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### **ECG Arrhythmia Classification using FNN | Capstone Project** [Sept. 2020 – June 2021]

- Developed an arrhythmia classification software in python utilizing the discrete wavelet transform for feature extraction and a feed-forward neural network for classification
- Achieved an accuracy of 97.87% on six of the most common arrhythmias

### **Face Recognition System using CNN** [April 2021 – June 2021]

- Developed a facial recognition software in python using TensorFlow and OpenCV
- The CNN was trained, tested, and improved over a couple months using a labeled dataset
- The final iteration achieved an adjusted accuracy of 85% on the open-source LFW dataset