

Patrick Salsbury

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EDUCATION

University of California, San Diego | B.S. Data Science, Business Minor Expected June 2024

- Data Management, Intro to Machine Learning, Applications of Data Science, Data Analysis & Inference, Business Analytics

De Anza College | A.S. Computer Science

September 2018 - June 2021

- Data Science Fundamentals, Data Structures & Algorithms, Object Oriented Analysis and Design

Certifications

- [IBM Data Engineering](#) (Coursera) - MySQL, PostgreSQL, IBM DB2, Apache Spark, Airflow January 2023 - Present
- [Google Data Analytics](#) (Coursera) - Python, SQL, Excel, Tableau, R February 2022 - May 2022

TECHNICAL SKILLS

Languages: Python, SQL, Java, Bash Scripting

Databases: MySQL, PostgreSQL, DB2, SQLite, MongoDB

Libraries / Frameworks: Pandas, Numpy, SkLearn, Apache Spark, Airflow, PySpark, SciPy, Plotly, Seaborn

Softwares: Azure, AWS, Jira (Agile), Linux, Github Version Control, Databricks, Power BI, Tableau, Docker

EXPERIENCE

Computer Science Coach | *TheCoderSchool* February 2023 - Present

- Mentored students ranging from Elementary to High School improving their knowledge of computer science.
- Guided and supported the development of apps in **Python** and **Scratch** over a 4-6 week timeframe while simultaneously teaching the fundamentals of programming and software engineering.

Data Science & Engineering Intern | *HM Electronics*

June 2022 - September 2022

- Analyzed customers device data improving the quality of production and customer relationships by showcasing areas of concern.
- Extracted semi-structured console log data from 100+ customer devices to ingest into a **Azure Blob Data Lake**.
- Automated the **ETL** process on 30+ million raw records of data using **PySpark** on **Databricks(Microsoft Azure)**.
- Predicted customer device failure using **Classification** and **Clustering ML** models, isolating variable indicators for tech support.
- Led **Agile** sprint presentations to showcase findings using **Python**, **SQL**, and **Power BI** to influence decision-making of product managers and software engineers.

Mathematics Tutor | *De Anza College*

August 2019 - April 2021

- Led college students from different backgrounds in various mathematics courses including Precalculus, Calculus, Differential Equations, and Linear Algebra, through personalized and group tutoring sessions.
- Conducted group workshops, mentoring up to 10 students at a time resulting in more than a 50% increase in passing rates.
- Developed effective study plans for students, resulting in significant improvement of scores in the 90%+ range.

PROJECTS

Real-Time Weather Data Dashboard

- Constructed dynamic **dashboards** visualizing real-time weather updates using **Tableau**, **MongoDB**, and weather APIs.
- Highlighted temperature, humidity, and other attributes using **Apache Airflow** to build an ETL **batch** processing pipeline that ingested, transformed, and loaded the data while performing various quality checks.

Popular Youtube Video Titles Generator

- Utilized Youtube APIs to store and analyze daily top 50 trending videos to generate new possible trending video titles.
- Established an automated **batch ETL pipeline** to populate an **Postgres database** using **Bash Scripting**, **SQL**, and **Python**.
- Generated titles using sentence linguistics, **unigram NLP models**, and **N-gram NLP models**.

Best Companies to Work For Analysis

- Showcased using **dashboards** the top 500 best companies to work for in 2021 according to Forbes.com using **Python** and **SQL**.
- Extracted and transformed data using **web-scraping** and **data processing** to store into an **SQLite database**.
- Engineered an interactive user interface to present findings by utilizing **embedded-SQL queries** and **Matplotlib**.

LEADERSHIP & VOLUNTEERING

Chancellor, Vice President of Scholarship & Awards | *UC San Diego - Delta Sigma Pi*

December 2021 - Present

- Led and managed as the **primary spokesperson** of a professional business organization consisting of 60+ members.
- Demonstrated strong **leadership** skills, exhibiting **teamwork** and effective **communication** increasing member engagement.

Computer Repair Technician | *De Anza College*

January 2020 - March 2020

- Refurbish 3+ laptops per week and other computer hardware/firmware enabling underprivileged students to gain advantage.
- Collaborated alongside computer engineers to **problem-solve** and **debug** defective components.