# Jonathan Cheung

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## TECHNICAL SKILLS

**Programming:** Python, PostgreSQL/MySQL

Analytical and Modeling Tools: Pandas, scikit-learn, numpy, statsmodels, Microsoft Excel, PowerBI

Machine Learning: regression and classification, generalized linear model, support vector machine, natural language processing,

GridSearch/pipeline, neural networks, clustering, principal component analysis

Data Visualization: Matplotlib, Seaborn, Folium

## PROFESSIONAL EXPERIENCE

Data Analyst, Los Angeles Mayor's Office – Los Angeles, CA (October 2021 – Present)

- Design and implement Python scripts using APIs from public health data sources (John Hopkins University, CA CHHS) to generate consistent COVID-19 data reports.
- Wrangling raw COVID-19 data with self-designed python scripts used to maintain weekly trend reports on cases, deaths, tests and vaccinations by neighborhood and region in LA county.
- Created visualizations and interactive "StoryMaps" using ArcGIS' geocoding software for various projects including GRYD and LAADUAP.

## Instructor Associate, GENERAL ASSEMBLY – San Francisco, CA (March 2021 – Present)

- Educated students in Humana's enterprise-level Advanced Analytics program covering fundamentals in SQL, PowerBI and Python as part of their mission to standardize data practices within their organization.
- Mentored students one-on-one to review concepts such as table JOINs, window functions, subqueries, data types and OOP paradigm that improved class average lab scores.
- Enhanced student learning by leveraging daily class feedback to tailor course curriculum and implemented a wide range of classroom activities that encouraged topic discussions.

#### Analyst, ALLIANT INSURANCE – San Francisco, CA (January 2019 – March 2020)

- Responsible for day-to-day operations and ad hoc reporting with MS Excel for 13 mid-market to big business accounts including Dolby, Micro Focus, Niantic, and FireEye.
- Constructed detailed benefits matrices using Excel visualizations for business proposal requests and developed insurance coverage grid templates that increased efficiency for contract audits.
- Coached 4 new team members over a span of 1 year on company procedures for client deliverables and delegated tasks from the internal request pool for training.

## DATA AND RELATED PROJECTS

## Tesla Stock (Time Series Analysis)

- Extracted 10 years of historical Tesla stock price data from Yahoo Finance using the lxml module for web scraping.
- Performed time series analysis by constructing correlograms (P/ACF plots) and time plots, conducting Augmented Dickey-Fuller tests, log transforming and data imputing.
- Forecasted stock prices for subsequent weeks using ARIMA methods, LSTM models and confidence intervals.

## **LAADUAP Inventory Analysis**

- Created a map to visualize the distribution of affordable housing units for within LA county to identify areas of supply and demand that would influence allocation of resources and marketing for the program.
- Utilized public ESRI data to highlight specific characteristics of neighborhoods including income levels, senior population, and home value.

#### **EDUCATION**

Data Science Immersive, GENERAL ASSEMBLY – San Francisco, CA (March 2020 – June 2020)

• Completed 480+ hours of data science coursework relating to statistical models and theories, linear algebra, machine learning algorithms, data structures and AWS cloud computing.

San Francisco State University C/O August 2018 | B.S. Business Administration (Management Concentration)