# Jonathan Cheung

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## **TECHNICAL SKILLS**

Programming/Query: Python, PostgreSQL/MySQL

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

Machine Learning: A/B testing, regression, classification, decision trees

Data Visualization: ArcGIS, Matplotlib, Seaborn, Folium

#### PROFESSIONAL EXPERIENCE

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

- Design and implement Python APIs to public health data sources such as John Hopkins University, CA CHHS and LA County to generate biweekly COVID-19 data reports for over 20,000 city employees and public access.
- Wrangle raw COVID-19 data using proprietary scripts to build trends on cases, deaths, tests and vaccinations by neighborhood and region in LA county used by the Mayor's Office of Public Safety for policy planning and public disclosure.
- Created visualizations and interactive "StoryMaps" using ArcGIS' geocoding software for various city projects including GRYD, REPAIR LA and LAADUAP to facilitate a budget allocation strategy with over \$10 million.

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

- Educate 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.
- Mentor 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 by 10%.
- Enhance 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)

- Oversaw 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 a 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 and forecasted stock prices for subsequent weeks using ARIMA methods, LSTM models and confidence intervals.
- Performed time series analysis by constructing correlograms (P/ACF plots) and time plots, conducting Augmented Dickey-Fuller tests, log transforming and data imputing.

#### **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

• 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 | B.S. Business Administration (Management Concentration)