# **David Angelo S. Brillantes**

STATISTICIAN | DATA SCIENTIST

Do ordinary things extraordinarily well. A resourceful, dedicated, and purpose-driven individual seeking a career in data science and statistical machine learning. An advocate for the innovative use and analysis of data for social good.

CONTACT

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#### **QUICK LINKS**

dsbrillantes.github.io github.com/dsbrillantes kaggle.com/dsbrillantes

### **EXPERIENCE**

# 2019-09- UNIONBANK OF THE PHILIPPINES, DATA SCIENCE UNIT

# 2020-04- Business Intelligence Officer

- Generated leads for campaigns and promo fulfillment after applying exclusion criteria to the bank's customer base to promote usage of credit, debit, and prepaid products
- Automated a base generation pipeline by utilizing production R scripts and SQL queries to perform ETL, task management with Apache Airflow, and CRM with Salesforce Marketing Cloud, thereby transforming an on-demand, two-person effort into a maintainable solution
- Participated in campaigns management and collaborated with businesses to improve customer journeys by evaluating performance indicators
- Tracked the account opening of deposit products through a Power BI dashboard

#### PRESENT Data Scientist

- Rationalized end-to-end insight generation for product owners and business segments through a Power BI dashboard that dived into the bank's leading retail digital initiative oversaw data modeling in R, visual data storytelling, creation of advanced DAX measures, deployment to PBI service with automated data connections through a PBI gateway, and continuous feature enhancements
- Partnered with the Data Science Solutions teams to provide support for data-driven recommendations to business

#### 2019-06-PRESENT

#### FREELANCE STATISTICIAN

- Delivered statistical consulting services to college students and a startup company to achieve research objectives, ensuring statistically sound methodologies and conclusions
- Conducted survey sample size determination and instrumentation, built regression models for inference, performed hypothesis testing, and created data visualizations

#### **EDUCATION**

#### 2015-08-2019-06

# UNIVERSITY OF THE PHILIPPINES DILIMAN

## **Bachelor of Science in Statistics**

- College Scholar for three semesters (GWA of 1.75 and above)
- Equips students with the necessary skills to design studies, analyze data, manage and process data using a variety of software packages, and communicate the results of the study
- Electives Taken: Introductory Machine Learning, Advanced Linear Models/Econometrics

## Leadership & Affiliations

- Media & Publicity Councilor, UP School of Statistics Student Council (2017-2018)
- Secretariat Committee Chairperson, UP Variates (2018-2019)
- Publications Director, UP School of Statistics Graduation Committee (2019)

## **Selected Research Papers**

Understanding Micro-level Hunger Incidence using Community-Based Monitoring System (CBMS) Data through Semiparametric Additive Logistic Modeling and Feature Selection using Random Forests

- Shortlisted, Best Undergraduate Student Paper Award 2019, UP School of Statistics

Piliin Mo Ang Pilipinas: Redefining and Constructing a 21st Century Conceptualization of Nationalism in the Philippines using Multivariate Techniques

- 3rd Place, Best Undergraduate Student Paper Award 2019, UP School of Statistics

Determinants of MRT-3 Ridership using Time Series Regression with ARMA-GARCH Errors

TOOLS & SOFTWARE

R: tidyverse tools for data science (dplyr, stringr, lubridate, tidyr, etc.), tidymodels framework, advanced ggplot2 visualizations, RMarkdown for reproducible reports and insights integration, RStudio Server for scalable computation and centralized RAM management, RODBC & RJDBC for DBMS connections, intermediate base R knowledge, script profiling for optimization

Python: Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn

**Power BI**: Power Query, intermediate DAX measures, Data Modeling, Relationships Management, PBI Service for publishing and sharing reports, PBI Gateway for dataset scheduled refresh

Others: SAS (Base), Stata, EViews, SPSS, Tableau

STAT & ANALYTICS

Descriptive & Inferential Statistics, Building Statistical Models (Checking Assumptions, Residual Diagnostics, Evaluating Predictive Ability), Generalized Linear Models (OLS Regression, Logistic Regression, etc.), Time Series Analysis (ARIMA, GARCH, Forecasting), Exploratory Data Analysis, Panel Data Analysis, Categorical Data Analysis, Latent Factor Analysis, Cluster Analysis, Supervised Learning (Regularization, Dimension Reduction, Tree-based Methods, kNN, GAMs), Unsupervised Learning (K-Means Clustering, Self-Organizing Maps, Artificial Neural Networks)

FIELDS OF INTEREST

Statistical Machine Learning, Data Visualization, Big Data Analytics, Data Science for Social Good and Social Impact, Artificial Intelligence, Finance, Technology, Banking

# **CERTIFICATIONS, PROJECTS, & TRAININGS**

2019-11-

#### STANFORD UNIVERSITY ONLINE

2019-12

# Self-Paced Online Course on Statistical Learning | Grade: with Distinction

- Conducted by Stanford professors Trevor Hastie and Rob Tibshirani
- Materials include video presentations, lab exercises in R, and end-of-chapter quizzes

2019-12-2020-06

#### DATAQUEST.IO

# Data Scientist in Python Path | Data for Social Good Scholarship Recipient

- Completed 93 missions and 18 projects
  - Car Prices Prediction using k-Nearest Neighbors
  - House Sales Prices Prediction using Linear Regression
  - Stock Market Performance Prediction using Linear Regression
  - Hourly Bike Rental Prediction using Decision Trees
- Intermediate Python for Data Science, Intermediate Machine Learning (Scikit-learn)
- Advanced Data Cleaning & Management (Pandas, NumPy, SQL)
- Data Visualization and Storytelling (Matplotlib, Seaborn)

2020-09-PRESENT

#### R NOTEBOOKS ON THE INTRODUCTION TO STATISTICAL LEARNING

• Growing collection of R Markdown Notebooks going through the chapters of the *Introduction* to Statistical Learning with Applications in R by Hastie, et al.

## Data and AI Learning Sessions, UnionBank University

2020-09 Introduction to Data Extraction, Web Scraping, and AI

Explainability of Al

Supervised and Unsupervised Learning

Model Validation

#### **Others**

2020-10 Tableau Learning Session

2020-09 Dashboard in a Day: Power BI Workshop

2020-07 High Impact Presentation Skills