

# Hongling Yang

## Data Scientist

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**Github** <https://github.com/hyang78227>

Data science professional with a PhD in statistics and more than 10 years' experience and a strong statistical and analytical background. Expertise in data mining, python, R, SAS, C++, machine learning, and statistics. Passionate about solving problems using data, and presenting insights to business audiences

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## SKILLS

**DBMS:** MS SQL Server, MySQL, Postgres

**Analytical Tools:** SQL, Python, R, SAS.

**Data Science:** Data Wrangling, Data Visualization, Statistical Modeling, Predictive Analytics, Forecasting Analytics, Data Wrangling, Data Pre-processing, Data Visualization, Statistical Modeling

**Machine Learning:** TensorFlow, Pytorch, Pyspark, Natural Language Processing, Recommendation, Systems, Neural Network, Time Series, Clustering, Dimension Reduction, Bagging and Ensemble Methods, Logistic Regression, SVM, Naive Bayes, Hadoop Ecosystem, Image Processing, Optimization, unstructured Data

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## EDUCATION

### PhD: Statistics

Arizona State University - Tempe, AZ

2005 - 2008

### M.S: Statistics University

Texas - El Paso El Paso, TX

2003 - 2005

### B.S: Finance

Peking University - Beijing, China

1998 - 2002

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## EXPERIENCE

### Data Science Trainee

Sprinboard, San Francisco, CA

2023-2023

➤ **Fashion Product Image Classification** - [GitHub - hyang78227/capstone-project3](https://github.com/hyang78227/capstone-project3)

- Achieved 97.5% accuracy with CNN via Transfer Learning; enhanced minority class representation and implemented Hyperband for optimization.

➤ **Google App Store Educational Apps Analysis** - [GitHub - hyang78227/CapstoneProjectTwo](https://github.com/hyang78227/CapstoneProjectTwo)

- Predicted app ratings with up to 94% accuracy using multiple classifiers; addressed class imbalance and optimized using Hyperband.

➤ **Big Mountain Ski Resort Pricing Analysis** - [GitHub - hyang78227/DataScienceG](https://github.com/hyang78227/DataScienceG)

- Applied regressions to increase ticket value by up to \$19; streamlined data pipeline and improved model accuracy to 96% with GridSearchCV.

**Other Projects** - [GitHub - hyang78227/Springboard](https://github.com/hyang78227/Springboard)

- **COVID-19 Analysis:** Classified patient states with 92% accuracy using a Random Forest Classifier on South Korean data.
- **Flight Delay Prediction:** Predicted delays with 94% accuracy using Light GBM; refined precision via Bayesian Optimization.
- **Cigarette Sales Forecast:** Analyzed historical data to project sales trends; achieved a MAPE of 3.5%.
- **Wine Customer Segmentation:** Segmented wine customers with a silhouette score of 0.75 using K-means clustering.

## Statistician

2016-2017

School Of Medicine, University Of California, San Diego, CA

- **District Study:** Investigated alcohol use's correlation with IPV and its subsequent HIV risk using structural equation modeling.
- **IPV Intervention:** Piloted a 2-arm intervention for men, gauging effect sizes for wider deployment.
- **Baltimore HIV Study:** Assessed neighborhood influences on forced sex rates among African American women, delineating HIV risk.
- **Stress & HIV Analysis:** Utilized multilevel analysis to discern stress-driven pathways linking forced sex to HIV risk behaviors.

## Statistical Consultant

2010- 2014

Texas Tech Health Center, El Paso , TX

- **Medical Research:** Led research initiatives, mentored residents, and formulated sampling strategies.
- **Program Enhancement:** Elevated the resident program with advanced statistical computing skills.
- **Clinical Trials:** Collaborated with physicians for seamless execution.

## Statistician & Lecturer

2008-- 2016

College of Engineering, University of Texas, El Paso, TX

- **GIS Research:** Pivotal in the 'Ride8 Project' for Ozone pollution analysis in El Paso, TX.
- **Research Collaboration:** Co-authored several published papers with research peers.
- **Teaching:** Instructed courses in mathematics and statistics.

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## CERTIFICATION

SAS Certified Advanced Programmer for SAS 9 (Certified Serial Number: AP011585v9)

SAS Certified Base Programmer for SAS 9 (Certified Serial Number: BP038502v9)

SAS Certified Clinical Trials Programmer Using SAS 9 (Certified Serial Number: CTP001236v9)

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## LANGUAGES

Chinese, English

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