

Winston Robson

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EXPERIENCE

Galvanize, Inc.

San Francisco, California

Data Scientist

June 2018 – Present

- Capstone Project

- **Quantitative Population Prediction by Place (USA)**

- This project aims to utilize machine learning on combined Census (1970-2010) and American Community Survey (2011-2015) datasets to predict the future population of any place in the United States
 - Model performed 25% to 50% better than Baseline Assumption of continued (averaged) growth

Berkshire Hathaway HomeServices Drysdale Properties

Pleasanton, California

Real Estate Consultant, Realtor®

June 2018 – Present

- Residential real estate sales focused in Tri-Valley

Sterling Bros Investment & Development Ltd.

Camden Town, London

Head of Marketing

September 2017 – December 2017

- Temporary position; mobilized deal flow conducive of long-term growth and value
- Sourced and communicated investment opportunities with fund management throughout Eurasia
- Analyzed individual and portfolio commercial real estate investments ranging from £5m to £50m
- Utilized SEO and cold marketing to establish symbiotic F2F relationships throughout the United Kingdom
- Constructed responsive database of 839 clients which initiated lead pairings to increased operational efficiency
- Devised locational arbitrage equations for Ferrari 458s (2011-2014) manual single variable input, multimetric output

Wilson Coker Wealth Advisors, LLC (Raymond James)

Rogers, Arkansas

Intern / Head of Online Presence

June 2017 – August 2017

- Founded Online Presence Department, set up system and practices, trained replacement
- Designed and implemented 3 AdWords campaigns, 7-10 ads each, allocated resources and mapped results
- Lead conference calls between WCWA and RJFS Web Development, Marketing, and Compliance departments
- Established self-improving scheme, increased new users (3/week to 270/week), sessions (3/week to 400/week)
- Directed 6 social media accounts via Hearsay Systems, sourced and scheduled relevant content on rotational method
- Produced weekly report detailing the week's highlights, results, and areas for improvement with follow-up action plan

DEVELOPMENT

Capitaf

West Fairlee, Virginia

Tariffs and Monetary Policy

June 2018

- Colloquium examining Milton Friedman with a focus on his works Capitalism and Freedom and Free to Choose
- Lead discussion on tariffs and monetary policy, conveying Friedman's views and posing thought-provoking questions
- Moderated by guests from the Hoover Institution, Free to Choose Foundation, Dartmouth College, and various industries

Lifr Podcast

Fayetteville, Arkansas

Founder and Director

January 2018 – Present

- Interviewed esteemed and accomplished guests on their habits and approach to life
- Produced video lessons on the basics of Arabic, French, Russian
- Live streamed gameplay and commentary to Twitch (PrinceArthur), YouTube, and Instagram

EDUCATION

Sam M. Walton College of Business, University of Arkansas

Fayetteville, Arkansas

Accounting, Finance, Economics

Fall 2016 - Spring 2018

- Dean's List & Honors College Signature Scholar; Walton Honors; Cumulative GPA: 3.7/4.0

Richmond, The American International University

London, United Kingdom

Contemporary British Culture, Finance, Investment

August 2017 – December 2017

- Internship Programme, independent semester abroad

UofA Global Community Development

Ho Chi Minh & Can Tho, Vietnam

Business Team, Lead Presenter

December 2016 - January 2017

- Examined benefits of agricultural co-op; interviewed farmers, compiled and analyzed data on standard of living change

Data Science Skills

Python, Numpy, Pandas, Matplotlib, Scikit-Learn, Selenium, Facebook Prophet, BeautifulSoup

Interests

Mixed Martial Arts, Grime (music), Education, People

Skills

Finding Value, Real Estate, Search Engine Optimization

Licenses

California Real Estate Salesperson (DRE#020607)
Realtor® (MLS#206538676)

Publication

[Offsite, the Vanguard of Construction](#)

Quantitative Population Prediction by Place (USA)

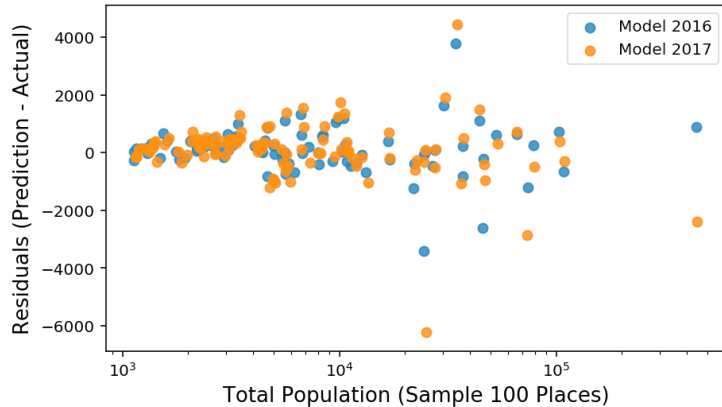
Winston Robson | Galvanize Data Science Immersive g88 (San Francisco, Spring 2019) | <https://bit.ly/2Z5IONb>

Purpose

This project aims to utilize machine learning on combined Census and American Community Survey datasets to predict the future population of any place in the United States.

Outcome

Prediction Residuals 2016 vs 2017



- 2016
 - Model performed 25.4% better than Baseline

Place	Model Pred	Baseline Pred	Actual Pop
San Francisco	862,737	864,025	850,282
New York	8,491,355	8,584,487	8,461,961
New Orleans	335,259	396,463	382,922
Houston	2,297,084	2,300,705	2,240,582
Bentonville, AR	39,239	43,605	42,499
Sidney, NE	6,879	6,890	6,875
Pleasanton, CA	74,550	78,530	77,046

- 2017
 - Model performed 49.8% better than Baseline

Place	Model Pred	Baseline Pred	Actual Pop
San Francisco	872,139	887,287	864,263
New York	8,549,441	8,742,231	8,560,072
New Orleans	330,641	416,188	388,182
Houston	2,344,416	2,382,704	2,267,336
Bentonville, AR	39,984	46,842	44,601
Sidney, NE	6,900	6,950	6,830
Pleasanton, CA	73,549	82,051	79,341

Process

1. Exploratory Data Analysis
 - a. Examined large number of Geographic filters on Total Population
 - i. E.g. Place, 5-digit Zip, County
 - b. Determined Place to be most usable
 - i. Counties were too ranged in Number of Measurements, some since 1790 and having 20+ w/ others < 10
 - ii. 5-digit Zip measurements were initialized too recently, no multi-decade historical data
2. Combined Place Census 1970-2010 Total Population data with each Place ACS 5-year Estimate 2011-2015 of Total Population (Age/Sex)
 - a. Forgetting places that do not coexist across datasets (would not accurately measure)
3. Defined Baseline as assuming Continued Trend from Place's population change
4. Engineered Generalized Additive Time-Series Model using [Facebook's Prophet](#) to forecast Total Population
5. Randomly sampled 100 places Coexisting across ACS years 2011-2017 and 2+ Census 1970-2010
 - a. Allows interpretation on per year and decades-long basis
 - b. Did not consider places with Total Population less than 1,000; unrealistic predictions
6. Fit Model on each sample place
7. Measured Model Outcomes v. Baseline Assumptions
 - a. Compared to Actual 2016 & 2017 Populations
 - b. Model consistently outperforms when taking a sample (multiple Places), but in specific instances does come up short

Tech Used

