

Jack Vessa

Data Scientist | San Francisco, CA | 516-510-2821

 [Portfolio](#) |  <https://github.com/jackvessa> |  www.linkedin.com/in/jackvessa |  jackvessa@gmail.com

SKILLS & KNOWLEDGE

- **Languages:** Python, SQL, HTML, CSS, Unix, C++, Java, JavaScript
- **Tools & Technologies:** NumPy, Pandas, Scikit-Learn, APIs, Web Scraping, Git, MongoDB, Docker, PostgreSQL, AWS, Data Cleaning/Visualization, Spark, Flask
- **Machine Learning:** Linear/Logistic Regression, Regularization, Random Forest, Gradient Boosting, NLP, Matrix Factorization, Neural Networks, LDA Topic Analysis

EXPERIENCE

Galvanize, San Francisco, CA

August 2019 - Present

Data Science

- **Capstone Projects:**
 - **Charity Recommender:** Built charity recommendation web application to connect people to new and impactful charities based on previous donations, providing options to identify local charities based on specified categories. The model was trained via Latent Dirichlet Allocation and the web application was hosted on Flask.
 - **Genius Groups:** Built a web application to assist teachers in forming student groups from assessment data. The website was built using Flask and hosted on an Amazon EC2 Instance.
- **Case Studies:**
 - Built a fraud detection model for event company using logistic regression and deployed website on Flask
 - Built a movie recommender using matrix factorization & collaborative filtering ensemble
 - Performed NLP analysis of 400,000 wikipedia pages using k-means clustering
 - Predicted user churn from ridesharing company data using gradient boosting classification model
 - Predicted heavy equipment auction prices using multiple linear regression

Teach for America, San Francisco Bay Area, CA

June 2017 - Present

Rising Leaders Fellow, Corps Member

- Selected from more than 45,000 applicants to join the national teacher corps of 6,000 recent college graduates
- Trained in TFA "boot-camp" to learn teaching strategies, educational pedagogy, and systemic obstacles to learning
- Led STEM track professional development for 1st and 2nd year corps members on building student confidence and accountability in the math classroom

Making Waves Academy, Richmond, CA

August 2017 - June 2019

Upper School Mathematics Teacher: AP Statistics and Algebra II

- Taught, and individually supported 200+ 10th-12th grade students in progressive charter school environment
- Led a professional development session for 50 faculty, staff, and school leadership team members on the implementation of digital gamification resources in classrooms
- Increased student AP-Statistics passing rate by 200%

ACTIVITIES

VandyHacks

November 2015 - May 2017

Sponsorship Team (2016); Participant (2015)

- Secured more than \$63,500 from company sponsors, optimized sponsor experience and engagement

EDUCATION

Loyola Marymount University, Oakland, CA

June 2019

Master of Arts, Urban Education: *Digital Learning Concentration*

Thesis Research Project: Digital Gamification in the STEM Classroom

Vanderbilt University, Nashville, TN

May 2017

Bachelor of Science, School of Engineering, Major: *Engineering Science*

Double Minor: *Computer Science, Human & Organizational Development*