

Ruilong Zhuang

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Data-driven and analytical individual with experience of leveraging **Statistical Modeling, Machine Learning methods, A/B testing, Data Visualization tools** to identify actionable insights. Well-versed in communicating key findings to cross-functional teams and senior members. Proficient knowledge in **Programming, Analytics, Statistics** and **Mathematics**.

EDUCATION

Columbia University <i>M.S. Operations Research</i> <i>Courses: Machine Learning, Deep Learning, Business Analytics, Analytics on the Cloud</i>	Sep 2020 - Dec 2021 New York, NY
Whitman College <i>B.A. Mathematics & B.A. Computer Science, <u>Summa Cum Laude</u> GPA: 3.9/4.0</i>	Aug 2016 - May 2020 Walla Walla, WA

SKILLS

- **Technical Skills:** Python, SQL, C++, R, Java, Tableau, Git, Spark, Julia, Google Cloud, Bash
- **Packages:** Pandas, NumPy, SciPy, StatsModels, scikit-learn, LightGBM, Spark SQL, PyTorch, Plotly

WORKING & RESEARCH EXPERIENCE

Data Science Intern <i>Otis Elevator Co.</i>	Mar 2021-Present New York, NY
Consultant <i>Whitman Student Consulting Corp</i>	Sep 2019 - Mar 2020 Walla Walla, WA
<ul style="list-style-type: none">▪ Collaborated with a senior consultant to provide free management consulting services for a local non-profit▪ Facilitated client meetings with director and key stakeholders to define priorities for development▪ Presented action plan for doubling number of donors in two years by improving fundraising, marketing and communication	
Student Researcher <i>Whitman College CS department</i>	May 2019 - Aug 2019 Walla Walla, WA
<ul style="list-style-type: none">▪ Coordinated a team to improve and benchmark a generic library for simulating networks of ordinary and delay differential equations for systems modeling; Implemented algorithms based on fast-Gillespie methods using C++ and compared with different stochastic methods	

PROJECT & LEADERSHIP EXPERIENCE

Revenue Optimization Tool for Airbnb Host in Austin Technical Lead	Oct 2020 – Dec 2020 New York, NY
<ul style="list-style-type: none">▪ Developed XGBoost model to predict listings' occupancy rate based on host's behaviors, the listings' attributes and the customer's experiences▪ Built strategies with a potential of increasing hosts' revenue by 10% on average, leading to an increase of approximate 10% of Airbnb's revenue	
Kaggle Data Challenge: Riid Answer Correctness Prediction Personal Project	Oct 2020 - Present New York, NY
<ul style="list-style-type: none">▪ Predicted students' answer correctness using LGBM model on ~100M training data, and boosted model accuracy from 55% to 76% by feature engineering and hyperparameter tuning	
Airbnb Price Prediction and Visualization in LA Area Team lead	Mar 2020 - May 2020 Walla Walla, WA
<ul style="list-style-type: none">▪ Created pipeline to extract, transform and load more than 50,000 listing in Los Angeles area from Inside Airbnb▪ Provided strategy to achieve better host's review rating (~25% improvement), after performing exploratory data analysis, linear regression modeling, and identifying key factors impacting rating and listing price	
American Crossword Puzzle Solver Team lead	Oct 2019 - Mar 2020 Walla Walla, WA
<ul style="list-style-type: none">▪ Developed a generic American crossword puzzle solver framework using Python and optimized it to solve a 6x6 puzzle in less than 4 minutes on average▪ Scraped over 300,000 clues and words into a general knowledge database for NLP model training	