Ruilong Zhuang

rz2524@columbia.edu | (509) 629-9622 | [Portfolio Website](#) | [Github](#) | [Linkedin](#)

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 Sep 2020 - Dec 2021
M.S. Operations Research New York, NY
Courses: Machine Learning, Deep Learning, Business Analytics, Analytics on the Cloud

Whitman College Aug 2016 - May 2020
B.A. Mathematics & B.A. Computer Science, <u>*Summa Cum Laude GPA: 3.9/4.0*</u> 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 Mar 2021-Present
Otis Elevator Co. New York, NY

Consultant Sep 2019 - Mar 2020
Whitman Student Consulting Corp Walla Walla, WA
- 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 May 2019 - Aug 2019
Whitman College CS department Walla Walla, WA
- 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 Oct 2020 – Dec 2020
Technical Lead New York, NY
- 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: Riiid Answer Correctness Prediction Oct 2020 - Present
Personal Project New York, NY
- 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 Mar 2020 - May 2020
Team lead Walla Walla, WA
- 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 Oct 2019 - Mar 2020
Team lead Walla Walla, WA
- 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