

Russell Yang

San Jose, CA | [linkedin.com/in/russell-yang](https://www.linkedin.com/in/russell-yang) | russellyang.me | (650) 889-9922 | russell.yang@yale.edu

EDUCATION

Yale University, New Haven, CT 2021-2025

Bachelor of Science, Electrical Engineering and Computer Science and Molecular Biophysics and Biochemistry, GPA: 4.00

Coursework: Computer Engineering, Organic Chemistry 1 & 2, Cell Biology, Multivariable Calc, Biochemistry and Biophysics

Scholarships: MIT AgeLab OMEGA Scholar; National Merit Scholar; American College of Cardiology Young Scholar; Coca-Cola Scholar Semifinalist; California-Hawaii Elks Association Scholar

Massachusetts Institute of Technology, edX 2019-2020

MicroMasters, Statistics and Data Science, GPA: 98/100

Profile: micromasters.mit.edu/learner/russellyang

Graduate-Level Coursework: Probability (97%), Machine Learning with Python (99%), Data Analysis in Social Science (97%), Fundamentals of Statistics (99%), Capstone Exam in Statistics and Data Science (A, top quartile)

The Harker School, San Jose, CA 2017-2021

High School Diploma, GPA: 4.70

Coursework: AP CS, Neural Networks, Compilers/Interpreters, Expert Systems, Computer Architecture, Differential Equations

Test Scores: ACT (36/36), PSAT (1520/1520), SAT Subject: Math 2 (800/800), SAT Subject: Chemistry (800/800)

Awards: 3-time Solo Performer at Carnegie Hall, Perfect Raw Score, AP Computer Science A exam (top 0.295%); Finalist, Regeneron International Science and Engineering Fair; 1st Place in Nation, TEAMS (national engineering competition)

WORK EXPERIENCE

Johnson & Johnson, Incoming Data Science Co-Op, Cincinnati, OH 2022

- Hired to develop machine learning models for surgical applications in the Ethicon Endo-Surgery subsidiary
- 12-week summer opportunity in the summer of 2022

Stanford University Center for Biomedical Informatics Research, Stanford, CA 2018-Present

Data Analyst

- Developed multi-task machine learning models in R for joint prediction of tumor metastasis from gene expression
- Built a robust data-driven web app using shiny in R and validated it against 3 distinct cancer types

Undergraduate Researcher

- Revising machine learning/cancer biology paper for journal submission, synthesizing results into cohesive manuscript

Research Intern

- Investigated evolution of metastasis risk in R and Python using survival analysis, neural networks, random forests

Yale College Council, Finance Manager, New Haven, CT 2021-Present

- Deliberated on hundreds of funding applications through Undergraduate Organizations Funding Committee
- Charged with disbursement of \$350,000 annually to ~600 Yale student organizations

Self-Employed, Computer Science and ACT Tutor, Los Altos Hills, CA 2021-Present

- Offering Zoom-based tutoring for computer science, the ACT, PSAT, math, statistics, physics, and biology
- Earning \$55 to \$75 per hour providing personalized, process-driven, results-oriented, tutoring services

LEADERSHIP EXPERIENCE

Massachusetts Institute of Technology, Data Analysis Community Teaching Assistant, edX 2020

- Moderated forums & helped students with complex data science concepts for graduate-level class with 8345 enrollees
- Awarded Certificate of Excellence from MIT Economics recognizing my peer mentoring & content expertise

Yale Splash, AI Instructor, New Haven, CT 2021-Present

- Developed and taught/teaching short courses on “AI and Medicine” and “AI and Health Justice” for high school students

Engage STEM, President, Los Altos Hills, CA 2018-Present

- Founded and led global 501(c)(3) STEM education nonprofit, managed 43 chapter organizations around the world
- Organized tech inclusion contest for students with 200+ entries from 33 states and 36 countries
- Awarded grants from the Hershey Foundation and the MIT AgeLab

MACHINE LEARNING RESEARCH

Joint Prediction of Regional Lymph Node Metastasis and Distant Metastasis in Colorectal Cancer Using Hard Parameter Sharing and Sparse Structure Learning, *NIH Cancer Systems Biology Consortium Meeting (First-Author)*

Predicting Individual Substance Abuse Treatment Outcomes to Determine Auxiliary Support Needs: A Computational Approach, *Bay Honors Research Symposium @ Stanford University (Solo-Author)*

Modeling Distant Metastasis-Free Survival: Applications to Hazard Prediction and Pairwise Gene Interaction Discovery, *Sigma Xi Virtual Student Scholars Symposium, Regeneron International Science & Engineering Fair (First-Author)*

SKILLS AND INTERESTS

- **Computer Skills:** Machine Learning, Neural Networks, Classification, Segmentation, Data Visualization, Data Mining, Data Analytics, Statistics, Big Data, Deep Learning, Reinforcement Learning, Natural Language Processing, Computer Vision, Unsupervised Learning, Clustering, Recommendation Systems, Automated Machine Learning, Convolutional Neural Networks, Generative Adversarial Networks, Web Scraping, Tensorflow, Keras, scikit-learn, NumPy, Caret, Shiny, Google Colab, Tableau, Microsoft Azure
- **Language Skills:** R, Python, Java, HTML, CSS
- **Interests:** Machine learning for health and medicine, Machine learning for finance, Healthcare technology, Healthcare services, Healthcare operations, Fair machine learning, Unbiased machine learning, Machine learning web apps