Ryan Rong

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EDUCATION

Stanford University **Stanford, CA**
BS in Computer Science and Mathematics; GPA: 3.96 *June 2028*
Honors: CS229 Machine Learning Best Project Award (Top 1.8%)
Leadership & Clubs: Machine Learning Lab Director, Stanford ACM · Stanford AI Club · Stanford Google Developer Student Club
Relevant Coursework (select): Machine Learning · Deep Learning ·Natural Language Processing · Programming Abstractions · Computer Organization & Systems · Ordinary Differential Equations with Linear Algebra

WORK EXPERIENCE

Uber, Incoming Software Engineer Intern **San Francisco, CA** | *Summer 2025*

KOS Inc., Machine Learning Engineer **Palo Alto, CA** | *February 2025 - Present*
- Developed proprietary ML algorithm for tracking and analyzing vital signs such as heart rate, blood oxygen saturation, and blood glucose levels.
- Developing Android and iOS applications to interface with wearable via bluetooth.

RESEARCH EXPERIENCE

Stanford AI Lab, Research Assistant *December 2024 - March 2025*
- Contributed to Trace, a framework using LLMs to iteratively optimize agent code with natural language feedback.
- Developed a novel approach using Trace to achieve competitive performance in Atari Games with 750x fewer environment interactions, advised by PhD. Allen Nie; submitted to Conference On Language Modeling (COLM).

HealthRex Lab, Stanford University School of Medicine, Research Assistant *Summer 2023*
- Trained Random Forest and XGBoost models to predict the onset of Alzheimer's Disease, achieved 95% accuracy across all demographic groups. Project advised by Professor Jonathan H. Chen.
- Analyzed over 4 million electronic health records (20 GB) of 100,000+ Stanford Hospital patients using BigQuery, including medication, diagnoses, and lab results; Identified top 20 indicators of Alzheimer's using SHAP analysis.

Intelligent Code Analysis and Testing lab, University of Illinois Urbana-Champaign, Research Assistant *2022-2023*
- Developed BugFarm, a generative model for realistic Java bugs using an attention analyzer and LLMs, advised by Professor Reyhaneh Jabbarvand.
- Developed code tree parsing program to label the start and end of code blocks; improved the model's semantic understanding and accuracy by 10%; boosted speed by 5 times with parallel processing.

PROJECTS

Long Range Weather Forecasting with Chunked-Sequence Diffusion *Fall 2024*
- Developed a novel chunk sequential diffusion transformer model to accurately forecast weather variables like 2m temperature.
- Achieved comparable performance against state-of-the-art models with only 1% of the dataset and model parameter size.

American Sign Language Translator *2022-2023*
- Built a real-time sign language to English translator using convolution neural networks and custom attention architecture.
- Achieved 95% accuracy across 1000 common signs; tested with 30 students at a local deaf school.

AWARDS & RECOGNITIONS

- 2025 Stanford TreeHacks Edge AI Track Winner
- 2024 Cornell Trading Challenge Systematic Equities 1st Place, Overall Prize 2nd Place out of 80 teams, Jane Street Estimathon 1st Place; 2024 Traders@MIT Jane Street Estimathon 3rd place; 2024 Citadel Terminal US Invitational Top 8
- USA Computer Olympiad Platinum Division (Top 5%), USA Biolympiad National Top 50 (Top 1%),
- 2023 Microsoft Imagine Cup Americas Finals Lifestyle Category Winner (Top 1%), Epic Challenge Americas Runner up
- 2023 Jessica Lynn Saal Fellowship Award for Exemplary performance and Leadership in Research at Stanford (Top 5%)
- 2023 Terra North Jersey STEM Fair Finalist (Top 5%), Computer Science Category Winner (1st out of 20), IEEE Young Engineers Award, the Association for Computing Machinery Award
- 2022 Uber Global Hackathon Innovation Award
- 2022 FIRST Robotics Competition World Championship Quality Award, Mid-Atlantic District Championship 1st Place

SKILLS

- **Languages:** Python, C++, SQL
- **Framework/Libraries:** TensorFlow, PyTorch, Keras, React, Next.js, Pandas, Numpy, Scikit-Learn, Seaborn, Matplotlib
- **Tools:** Git, Bash, BigQuery, Docker, Linux, Firebase, AWS, GCP, Azure, Microsoft Office