

Ryan Kim

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EDUCATION

University of Illinois Urbana-Champaign

B.S. in Computer Science

William Fremd High School

GPA: 4.0/4.0 (UW), 5.207 (W) | AIME Qualifier (4x) | Simons Fellow

– **Relevant Coursework:** Linear Algebra, Multivariable Calculus, AP Statistics.

Urbana, IL

Aug 2026 – May 2029

Palatine, IL

Aug 2021 – May 2026

PROFESSIONAL EXPERIENCE

Simons Summer Research Fellow

Yurovsky Lab, Stony Brook University (Simons Foundation)

- Predicted glioblastoma survival rates by architecting a DNABERT-based prognostic model using Cox regression on non-coding regulatory DNA mutations.
- Identified significant age-related survival signals and racial disparities encoded in mutational scores to improve model interpretability.

June 2025 – Present

Stony Brook, NY

Lead Technical Developer

MathLinks.org

- Scaled a full-stack platform to serve 150,000+ members across 11 partner organizations by securing \$20,000 in seed funding (Hudson River Trading, Innovate901 First Place).
- Built production-ready infrastructure using React and Node.js for high-concurrency math competition environments.

Nov 2025 – Present

Remote

Research Intern

Advanced Computing & Oncology Lab, Memorial Sloan Kettering

- Optimized disease progression extraction from clinical reports by engineering a DSPy-based LLM pipeline.
- Authored a peer-reviewed abstract on referral event analysis accepted for the ACRO 2026 Summit.

Dec 2024 – Jan 2026

New York, NY

Research Intern

AI in Medicine & Computational Biology Lab, Weill Cornell Medicine

- Quantified systematic bias in AI tumor purity estimators across TCGA and internal cohorts to demonstrate scaling limitations in model generalization gaps.

Oct 2024 – Present

New York, NY

Founder

Papers2Code.org

- Developed a data-driven platform indexing 300,000+ ML/AI papers lacking code by building an automated pipeline to map research papers to GitHub repositories.

Jan 2024 – Present

Remote

Full-Stack Developer

Cyberlinc, Inc.

- Engineered a secure full-stack crowdfunding platform using Flask and SQLAlchemy with integrated payment gateways for project funding.

Aug 2023 – July 2024

Remote

TECHNICAL PROJECTS

micro-DINOv3 | *Pure Python, Computer Vision*

- Implemented a DINOv3 self-supervised ViT training system in dependency-free Python, featuring student-teacher EMA and multi-crop augmentation.

Feb 2026 – April 2026

Deep Mixture of Experts Reproduction | *PyTorch, Computer Vision*

- Open-sourced a PyTorch reproduction of "Deep Mixture of Experts via Shallow Embedding" to fill critical gaps in public research implementation.
- Verified model architecture against original paper results to contribute a verified codebase to the open-source community.

July 2024 – Nov 2024

LEADERSHIP

Captain

Fremd Math Team

- Led a 60+ member team to 25+ regional/state top finishes by developing specialized curriculum and modernizing team operations.

Aug 2021 – Present

Palatine, IL

TECHNICAL SKILLS

Languages: Python, Java, C/C++, SQL (PostgreSQL), JavaScript, HTML/CSS, R.

ML/Data Science: PyTorch, TensorFlow, DSPy, HuggingFace, Scikit-learn, Polars, Pandas, NumPy.

Domain Expertise: Clinical NLP, Computational Oncology, Survival Analysis, Computer Vision.

Web/Backend & Tools: React, NextJS, ExpressJS, Flask, FastAPI, MongoDB, SQLAlchemy, Git, Linux, Docker.