

Ryan Kim

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EDUCATION

University of Illinois Urbana-Champaign

B.S. in Computer Science

Urbana, IL

(Expected May 2029)

William Fremd High School

Palatine, IL

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

Aug 2021–May 2026

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

PROFESSIONAL EXPERIENCE

Pathology AI Research Intern

Oct 2024–Present

AI in Medicine & Computational Biology Lab, Weill Cornell Medicine

New York, NY

– Benchmarked **12** large pathology foundation models (e.g., UNiv2, Prov-GigaPath) across TCGA and internal cohorts, quantifying a **2x generalization gap** in AI tumor-purity prediction and revealing clinical deployment risks.

Research Fellow

Apr 2026

Non-Trivial

Remote

– Developing methods to debias histopathology foundation models, improving fairness across patient subgroups.

ML Research Contributor

Apr 2026–Present

MedARC

Remote

– Built the current state-of-the-art histopathology model for its data scale in an ongoing open challenge, using a dual-branched anti-overfitting training approach.

Computational Oncology Research Intern

Dec 2024–Jan 2026

Advanced Computing & Oncology Lab, Memorial Sloan Kettering

New York, NY

– Engineered a **CPU-only locally-deployed LLM-based clinical pipeline** using LLaMA, Qwen, and DSPy to classify lung cancer CT reports across **370** cases, coauthored referral-event analysis abstract accepted at **ACRO 2026 Summit**.

– Applied Cox regression and survival analysis on **230** patients' clinical and demographic records to identify correlations between percent thymic tissue and NSCLC outcomes.

Computational Genomics Research Fellow

June 2025–Present

Yurovsky Lab, Stony Brook University (Simons Foundation)

Stony Brook, NY

– Predicted glioblastoma survival rates by building 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.

Lead Technical Developer

Nov 2025–Apr 2026

MathLinks.org

Remote

– Led engineering for a full-stack math competition platform serving **150,000+** users across **11 partner organizations**; secured **\$20,000** in seed funding (Hudson River Trading, Innovate901 1st Place).

Founder

Jan 2024–Present

PapersToCode

Remote

– Built an automated paper-to-GitHub matching pipeline across **500,000+** ML/AI papers, surfacing which papers lack public implementations.

– Engineered infrastructure to facilitate reproducible implementations for ML research papers lacking public code.

Full-Stack Developer

Aug 2023–July 2024

Cyberlinc, Inc.

Remote

– Engineered a secure crowdfunding platform with Flask and SQLAlchemy, including payment integration.

TECHNICAL PROJECTS

micro-DINOv3 | *Pure Python, Computer Vision*

Feb 2026–April 2026

– Implemented a DINOv3 self-supervised ViT training system in dependency-free Python with EMA teacher-student distillation, multi-crop augmentation, and iBot loss.

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

July 2024–Nov 2024

– Open-sourced a PyTorch reproduction of “Deep Mixture of Experts via Shallow Embedding,” matching reported architecture and benchmark behavior.

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, Matplotlib, Ollama

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

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