Matt Yang

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EDUCATION

Stanford University **June 2028**

Bachelor of Science in Computer Science & Arts in History

- TreeHacks 2025, Student Space Initiative, Association for Computing Machinery
- Boothe Prize Nominee (Excellence in First-Year Writing)
- **Relevant coursework**: CS231N (Computer Vision), CS107 (Systems), CS103 (Discrete), CS109 (Probability), CS106B (Data Structures)

SKILLS & INTERESTS

- **Programming**: Python, Java, C++, C#, JavaScript, Modern AI Tooling
- **Machine Learning**: CNN, Transformer, LLM Training, RAG Pipelines, Agentic Workflows, Prompt Engineering
- **Frameworks**: TensorFlow, PyTorch, REST APIs, Spring, Django, Git, Docker, Bash, FAISS
- **DevOps/Cloud**: Unit Tests, Containerization, AWS (S3, Lambda, SageMaker, Bedrock)
- **Interests**: Reading, Strategy Gaming, Geopolitics, Prediction Markets, Strength Training

EXPERIENCE

Software Development Engineer Intern **June 2025 – September 2025**

Amazon Web Services — East Palo Alto, CA

- Built **A(P)ILens**, a CLI + LLM system for automatic API endpoint discovery
- Cataloged 5k+ API endpoints; handled automatic dependency resolution with Brazil-build and secure user auth
- Designed semantic search with Claude on Bedrock + FAISS, using prompt engineering for parameter-aware return-shape prediction
- Deployed via AWS CDK, Lambda, S3 with full unit testing; cut API discovery time 50%, tool adopted across teams

Honors Research Scholar **June 2023 – December 2024**

Michigan State University — Lansing, MI

- Admitted to selective (5% acceptance rate) program; predicted gene expression from scATAC-seq data
- Developed **MultiFormer**, a hybrid ensemble model of MLPs and DeBERTa-based supervised transformer, trained on MSU Titan GPU cluster
- Designed statistical preprocessing pipeline (TGSVD, z-score normalization) to process sparse 200GB+ single-cell datasets
- Surpassed prior benchmark by 0.03, achieving Pearson correlation of 0.67; awarded $2k Regeneron STS Scholarship

Arie E. Kaufman Mentor **June 2021 - June 2024**

kidOYO Software Engineering and CS Mentoring — Long Island, NY

- Delivered 1k+ hours of instruction to 500+ K–12 students in machine learning and game development via live Zoom sessions and pay-to-view recorded lessons; pioneered AI and Processing curriculum
- Maintained Django-based learning management system, supporting 20k+ monthly users
- Organized annual summer coding workshops (100+ students, 30+ teachers) and school outreach programs

PROJECTS

***ChessVisionAR*: Real-Time Chess Coaching with YOLOv8 + LLMs**

- CS231N final project; nominated by section leader for **Best Class Project** award
- Developed AR chess assistant to detect board positions and recommend next moves in real time
- Trained YOLOv8 with Albumentations (rotation, perspective, color transforms) and OpenCV preprocessing, boosting detection accuracy to 95%
- Integrated LLM coaching via ChatGPT API to generate strategy explanations and skill-tailored feedback, achieved sub-200ms response latency
- Built iOS app interface with Flask backend; packaged with Docker for reproducibility

AWARDS

- **Regeneron STS Scholar**
- **W.C. Mepham High School Salutatorian** – Ranked 2nd of ~400 students
- **$2500 National Merit Scholar**