ARJUN **K**HANDELWAL

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EDUCATION

Oxford University, Oxford, UK

Expected Graduation June 2027

B.S. Computer Science and Philosophy

• Admitted 2 years early, skipping 11th and 12th grade

Greenwoodhigh, Bangalore, India

June 2023

• Graduated with perfect grades, class rank 1/140

Completed 4 college-level AP courses independently in addition to regular curriculum, scoring 5/5s on all exams

SKILLS

Programming Languages: Python, HTML/CSS, JavaScript, Scheme, Haskell

Libraries & Tools: Pytorch, NumPy, Pandas, Einops, Einsum, Wandb, Jupyter Notebook, Selenium, BeautifulSoup, Matplotlib, Git/ Github, VS Code, Vim, Next.js, React.js, Anthropic, Firebase

EXPERIENCE

MAIA'S ARENA January 2025

Participant

- Selected to participate in an intensive, compressed version of <u>ARENA</u> run by <u>MAIA</u> (MIT's AI Alignment group)
- Highlights include: CNNs and RNNs from scratch, backpropagation, building transformers from scratch, mechanistic interpretability using TransformerLens, and reinforcement learning algorithms such as DQN and PPO
- See notebooks

METR March 2024- October 2024

Contract Software Engineer

- Architected and implemented an end-to-end pipeline leveraging LLMs to automatically identify and evaluate GitHub pull requests for Al
 safety research, processing over 2,000 PRs across major ML repositories
- Developed intelligent git diff summarization algorithms achieving 80% compression while preserving key technical information, enabling
 effective LLM evaluation within token limits
- Built and deployed an automated resume scoring system using Claude API, which allowed METR to prioritize screening resumes based on ML engineering scores via a standardized rubric that I helped design
- Created targeted outreach tools that identified and gathered contact information for 1,600+ ML graduate students

Qally's and 80,000 hoursJune 2024 - August 2024

Contract Software Engineer

- Engineered a distributed web scraping system using rotating proxies to ethically gather and analyze LinkedIn profiles at scale, processing
 ~1000 profiles a day
- Developed ML-based urgency scoring algorithm that reduced response time for high-priority contacts for 80k's free advising program
- Automated manual outreach processes, saving the team \$60,000 annually in operational costs

Nexus December 2023 - March 2024

Co-founder

- Developed a full-stack web <u>application</u> using Node.js, React, Python and Firebase, allowing users to upload, save and search for over 1000 extracurricular activities.
- Project won 2nd place and seed funding in a national entrepreneurship competition with over 1200 teams.

SELECTED PROJECTS

ROPE January 2025

- Implemented Rotary Position Embeddings (RoPE) from the RoFormer paper in PyTorch with visualizations and test suite
- See notebook

CS61A July 2023- August 2023

- Self studied Berkeley's version of SICP and ended with an A
- Implemented a Scheme interpreter in Python with support for core language features, special forms, and built-in procedures
- Developed a TypeRacer-inspired typing test <u>application</u> with autocorrect functionality implementing Levenshtein edit distance using dynamic programming

VOLUNTEERING AND HOBBIES

Eventlore April 2021 - March 2022

• Co-Founded a non-profit with 11 volunteers and 150+ recurring customers which hosted remote events.

- Received \$50k+ worth of sponsorship from companies including Wolfram Research, 1Password, AoPS and XYZ Domain.
- Events included hackathons, quizzes, chess tournaments and all proceeds were given to effective charities.

Chess

- Estimated ELO of ~2100, placing in the top 0.2% of active players globally
- Winner of Vivum Chess 2022, a major tournament with 100s of players across India. Finals streamed on youtube.
- Captained the school chess team, winning several competitions for the first time in School's history.

Piano

- Performed the piano in several charity concerts throughout India with 100s of audience members.
- Achieved Distinction in Trinity College London's Grade 7 Piano exam.