CHRISTOPHER DENQ

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SUMMARY

Junior AI researcher and data scientist seeking impact in AI safety/governance. Passionate about developing internationally robust regulation against GPAI abuse and risks. Industry experience in analytics and machine learning augments empirical methodologies for RMS research; unique undergraduate background in analytical philosophy provides strong foundation for aligned epistemics.

AI RESEARCH & FELLOWSHIPS

Incoming LLM Vulnerabilities Researcher   Expected Sep 2023 - Dec 2023
BUILD, University of Pennsylvania | Philadelphia, PA   PI: Prof. Robert Ghrist
- Will create LLM case studies evaluating vulnerabilities (data extractability, AI content-generation deepfake detection)

AI Technical Standards Researcher – EU AI Act   (Present) Mar 2023 – Aug 2023
European Union, CEN-CENELEC JTC21 x AI Safety Camp 8 (AISC) | Remote   PI: Dr. Koen Holtman
- Developing minimally acceptable best practices for AI risk management systems (draft for EU AI Act)
- Specializes on informational hazards and risk levels from unregulated GPAI/LLM models at both the user and societal level

AI Governance Intern   Jan 2023 – Mar 2023
Stanford AI Alignment's SPAR, Stanford University | Stanford, CA   PI: Robi Rahman (Epoch)
- Analyzed historical AI metrics (parameter, compute, dataset) across 31 countries to verify regional forecasting trends and inform governance strategies; published article with Stanford AI Index (pending)

AI Audit Intern   Dec 2022 – Jan 2023
EA@Berkeley Group's [GFI](GFI), UC Berkeley | Berkeley, CA   PI: Aris Richardson (SERI MATS)
- Performed literature review of auditing policies across 6 industries (hardware, software, robotics, cybersecurity, pharmaceutical, and financial) with goal of establishing precedents for AI-specific auditing frameworks

Machine Learning Fellow   Jan 2023
Cambridge AI Safety Hub's CaMLAB, Cambridge University | Cambridge, England   Advisor: Hannah Erlebach (CambridgeEA)
- Worked on transformer interpretability, model training, and hyperparameter tuning
- Projects include building a raytracer, custom ResNet, simple backpropagation framework, custom BERT, and scaled GPT

Machine Learning Research Assistant (Curriculum)   Nov 2021 – May 2022
AI-x Group, California State University: Northridge | Northridge, CA   PI: Prof. Wenchin Hsu
- Researched ML education pedagogies and curriculum development for Prof Hsu's Spring 2023 graduate ML course
- Succeeded in delivering 280+ slides, 10+ Java-to-Python code conversion, and applying mathematics to education

Machine Learning Research Assistant (Bioinformatics)   Jun 2012 – Sep 2013
Systems Biology Laboratory, University of Florida | Gainesville, FL   PI: Prof. Su-Shing Chen
- Researched optimal parameter space for SVM techniques to detect influential biomarkers for Alzheimer's
- Co-authored research paper; published in Journal of Clinical Bioinformatics

AI-SAFETY ACTIVITIES & CONFERNECES

AI R&D Teaching Assistant   May 2023 – Aug 2023
BUILD, University of Pennsylvania | Philadelphia, PA   PI: Prof. Robert Ghrist
- Advises cohort of 20 undergrad AI product engineers, each pursuing their own product/research development tracks

Dartmouth AI Safety Club Officer   Dec 2022 – Present
AI Safety x Dartmouth, Dartmouth College | Dartmouth, NH
- Performs logistics for new AI-Safety-specific club at Dartmouth; club currently pre-faculty-mentor
- Provides feedback to executive board on how to increase traffic and retention from remote participants

Research Presentations
- **Stanford AI Alignment (SAIA) Research Symposium 2023**   Mar 2023
- **Berkeley Good Futures Initiative (GFI) Research Symposium 2023**   Jan 2023

Conferences / Workshops
- **UC Berkeley CLTC: NIST First Draft Framework Workshop** — May 2023
- **EAG London 2023** — May 2023
- **EAG Bay Area 2023** — Feb 2023
- **AI Alignment Retreat 2022 (AIR)** — Dec 2022
- **EAGx Berkeley 2022** — Dec 2022

INDUSTRY EXPERIENCE

Data Science Intern — (Present) Jun 2023 – Aug 2023
United States Department of Defense, NSIN X-Force | Washington, DC
- Staffed to Naval Surface Warfare Center: Crane Division under Department of Defense and NSIN X-Force initiative
- Developing machine learning (NLP) model that ingests and prioritizes AI policy and research development in real-time
- Provides empirical evidence for various political strategies on the topic of AI national security and safety

Data Science Apprentice — Mar 2023 – Jun 2023
Adobe Digital Academy | New York, NY
- Selected scholarship finalist for Adobe's Data Science apprenticeship; engaged in 480+ hours of instructor-led content
- Successfully completed 3 machine learning hackathons, 4 data projects, and 1 capstone project

Data Analyst — Sep 2021 – Mar 2023
- Total 2 years: PNC (intern), Tzu Chi Medical Foundation (contract), 2U Education (part-time), Wyzant (freelance)
- PNC: Saved $375k via data-driven recommendations on loan pipeline; created 8 dashboards for 7 departments
- Tzu Chi: Decreased patient treatment time by 25% via dashboards and data automation that streamlined office productivity
- 2U Education: Taught 210+ hours of 2U's data analytics curriculum to 35 students; created classroom analytics to monitor
- Wyzant: Tutored 65+ hours of computer science and data to 25 students; average raise of 2.7 letter grades

EDUCATION

University of Pennsylvania | Philadelphia, PA
BA, Philosophy, concentration Moral and Political Philosophy — Aug 2017 – May 2021

University of Illinois – Springfield | Springfield, IL
BA, Mathematics, minor in Political Science — Dec 2022 – May 2024
- **Courses:** Advanced Linear Algebra, Statistical Inference, Probability Theory, Statistical Modeling (ML)

Foothill Community College | Los Altos, CA
AS, Mathematics — Apr 2021 – Dec 2022
- **Courses:** Linear Algebra, Statistics, Discrete Mathematics, Multivariate Calculus

Stanford University | Stanford, CA
Non-Degree — Sep 2022 – Dec 2022
- **Courses**: Introduction to AI Alignment (AGI Safety Fundamentals equivalent)

SELECTED PROJECTS ([FULL PORTFOLIO](#))

Deepfake Image Classifier App | [Source](#) — May 2023
Python: Matplotlib, Numpy, Pandas | Tensorflow: Keras | Streamlit
- Developed an EfficientNetv2-based convolutional neural net to detect deepfakes (0.99 validation precision)

SKILLS & FLUENCIES

- **Spoken Languages**: Mandarin Chinese (Fluent), Taiwanese Hokkein (Native), Spanish (Elementary)
- **Technical Languages**: Python: OOP & Functional | HTML/CSS/JS | APIs | Git
- **Machine Learning**: Python: SKLearn, Keras, Numpy, Scipy | Statsmodel | Tensorflow (G. Collab)
- **Analytics/Visualization**: Python: Pandas, Matplotlib, Seaborn | Tableau | Excel/VBA
- **Database, Cloud, DevOps**: SQL | NoSQL | Apache Hadoop/Spark | Github Pages | AWS

HOBBIES

Escape Rooms • Resource-Management Boardgames • Tabletop Roleplaying Games