Alex Clinton

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EDUCATION

University of Wisconsin-Madison — Madison, WI
PhD in Computer Science / Machine Learning — Aug 2023 - Present
- Research Assistant (May 2024 - Present), Teaching Assistant (Aug 2022 - May 2024)
- CS Department Research Assistantship Award (Summer 2024)

University of Notre Dame — South Bend, IN
B.S. Computer Science and Honors Mathematics — 2019 - 2023
GPA: 3.94 (*magma cum laude*)
- Sorin Scholar, Tau Beta Pi Member, Dean's List (Fall 2019 - Spring 2023)

EXPERIENCE

Mechanism Design for Collaborative Data Sharing — Madison, WI
Researcher: *advised by Prof. Kandasamy* — Aug 2023 - Present
- Designed a mechanism to incentivize data sharing for the multivariate normal mean estimation problem
- Provided a lower bound on the efficiency of any mechanism used to solve this problem
- Created truthful data sharing algorithms for real world ML problems using ideas from two-sample testing

Google — Seattle, WA
PhD Software Engineering Intern — May 2025 - Aug 2025
- Added LLM training as a health check in the Google Cloud AI infrastructure qualification test suite
- Automated GPU and network communication evaluation via training data metrics parsing
- This feature gates the release of accelerator optimized GCP hardware (on the order of 1k GPUs/week)

Computer Vision Research Lab – University of Notre Dame — South Bend, IN
Researcher — Aug 2020 - May 2023
- Created an original dataset (300 images) of fake lung cancer scans using Photoshop for testing the validity of machine learning detectors in the medical imaging domain
- Researched two machine learning/conventional approaches to identify code used in media forensics
- Developed and revised code in both Python and MATLAB to evaluate the efficacy of machine learning detectors in detecting and locating forgeries
- Wrote scripts to convert medical images from DICOM to PNG files to be processed by the detectors

Salisbury University REU — Salisbury, MD
Researcher — Jun 2021 - Aug 2021
- Reduced training time (and cost) for a boosted neural network ensemble by a factor of three via novel approaches
- Researched how machine learning boosting techniques have been applied to advanced learners
- Implemented novel training algorithms using Python and TensorFlow to demonstrate improved performance and decreased cost

PAPERS

- A Cramér-von Mises Approach to Incentivizing Truthful Data Sharing. Clinton et al. (NeurIPS 2025)
- Collaborative Mean Estimation Among Heterogeneous Strategic Agents: Individual Rationality, Fairness, and Truthful Contribution. Clinton et al. (ICML 2025)
- Incentivizing Truthful Data Contributions in a Marketplace for Mean Estimation. Chen K., Clinton A., Kandasamy K., arXiv preprint, https://arxiv.org/abs/2502.16052

SERVICE

Riverbend Math Circles — South Bend, IN
- I have volunteered with Riverbend math circles, an enrichment program for elementary and middle school kids that aims to foster interest in math and the critical skills to succeed in it

SKILLS

- **Programming Languages:** Python, C/C++, Java, Javascript, Matlab, Clojure, Bash
- **Frameworks, Software, and Tools:** TensorFlow, PyTorch, Numpy, Pandas, Git, LaTeX, Docker, Kubernetes