

Christian Rogers, Curriculum Vitae, February 2026

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Employment

Researcher (Undergraduate) January 2025 - Present
Aligned, Robust, and Interactive Autonomy (ARIA) Lab Salt Lake City, Utah

- Led research in interpretability to trace reward model circuits and their impacts on policy fine tuning, securing \$10.4k in grants, an NSF REU and two University of Utah UROP grants.

Lead Research Engineer (Undergraduate) September 2024 - Present
Neural Plasticity Rehabilitation and Movement Dynamics Lab Salt Lake City, Utah

- Directed software engineering for lab tools in a 7 person team of clinicians and programmers
- Published a paper on using deep learning to classify stroke severity as a diagnostic tool. Achieved a classification accuracy of against manual clinical assessments of 97%, with a baseline of 66%.
- Built E-PASS, a production web/app-based digital cognitive screening tool, acting as team lead and software engineer. In clinical testing.

Founder and Chief Scientist, Autonomy September 2025 - Present
Duran Aerospace Salt Lake City, Utah

- Founded an autonomous long-distance drone R&D and manufacturing company, designing new proprietary landing-spot planning and detection algorithms. We have received \$5,000 in grants from a venture capital firm, and are drafting an application for a DARPA contract.

Founder March 2023 - December 2024
R&J Software House Pleasant View, Utah

- Led backend development and customer relations using ReactJS for a freelance software startup that competed at the National Leadership Conference and won top 3 in Utah.

Founder December 2022 - December 2025
Webfork Pleasant View, Utah

- Developed a RAG recommendation algorithm and presented it to the International Career Development Conference and South Valley Shark Tank, winning \$2600 in grants.

Education

Bachelor's in Computer Science and Applied Mathematics Anticipated, April 2028
University of Utah Salt Lake City, Utah

- GPA: 3.81 - Engineering, Research, and Grand Challenge Scholar, Lassonde Founder and Student Leader, Merit Scholar
- *Relevant Coursework:* Deep Learning, Mechanistic Interpretability of LLMs, Multimodal LLM Agents, Advanced Artificial Intelligence, Linear Algebra, Multivariable Calculus, Optimization Theory, Systems and Architecture, Data Structures and Algorithms

Associate's in General Studies earned concurrently with High School Diploma April 2024
Weber State University and Weber High School Ogden, Utah

- GPA: 3.5 - Utah-Wasatch Sterling Scholar Finalist in Computer Technology, Debate Captain

Technical Skills

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- **Languages and Frameworks:** Python, Numpy, Pytorch, TransformerLens, C++, Java
 - **Applications:** MATLAB, Unity

Academic Publications

J. Ukey, **C. Rogers**, et al. “Enhancing Stroke Recovery Assessment: A Machine Learning Approach to Real-World Hand Function Analysis” International Journal of Medical Informatics, Vol 204, 2025

Technical Projects

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| Interpretability of Embodied VLAs and Cross-Modal Circuit Tracing | January 2026 - Present |
| <ul style="list-style-type: none">• Worked to develop the theory and experimental results for tracing causal circuits across multiple ML model types in a pipeline. In Progress. | |
| Towards Causal Benchmarks for LLM Hallucination | January 2026 - Present |
| <ul style="list-style-type: none">• Used an approach based on ConeCUT to build a benchmark that identifies and ranks the tendency of models to hallucinate based on internal circuit structures. In Progress. | |
| Interpretability-Auditing for RAG LLMs in high-regulation contexts | October 2025 - Present |
| <ul style="list-style-type: none">• Using Sparse Autoencoder and Transcoders, performed circuit tracing and reduction to explain provenance, chain of thought, and internal reasoning of RAG LLM assistants for finance. In Progress. | |
| Convolutional Neural Network from Scratch in C++, 92% MNIST Accuracy | Aug 2024 |
| <ul style="list-style-type: none">• Built a neural network from scratch including the numerical and autodiff in C++, achieving a 92% accuracy on the MNIST. | |
| 1-Night Esoteric Programming Language | Oct 18, 2024 |
| <ul style="list-style-type: none">• Built a language called etisoppO, which is an inverted version of C with inverted operators as a 1 night project competing against a classmate. | |
| Open Source Digital Circuit Design Teaching Program and Simulator | November 2025 - December 2025 |
| <ul style="list-style-type: none">• Called CircuitCat, built to teach the basics of digital circuit design through ALU design and computer organization through mini lessons taught by a cat mascot, as well as a simulator sandbox. | |
| Open Source Pixel Art and Animation Editor | October - November 2025 |
| <ul style="list-style-type: none">• Called Piskari, built as a minimal open source pixel art animation editor for a class project | |
| Networked Online Multiplayer Video Game in C# | March - April 2025 |
| <ul style="list-style-type: none">• Online networked version of snake themed after dune's with a live leaderboard for class | |