COLIN WOLFE

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EDUCATION

Dartmouth College, Hanover, NH — **EXPECTED JUNE 2027**
Bachelors, Major in Electrical Engineering and Computer Science (Major GPA: 4.0) — **GPA 3.81/4.0**
Relevant Coursework: Object-Oriented Programming, Discrete Math, Security and Privacy, Software Design & Implementation
Activities: Granite State Finance Partners, Dartmouth Political Union, Dartmouth Radio Show, Dartmouth Undergraduate Law Review, Phi Delta Alpha, Dartmouth Leadership Attitudes & Behaviors Program, NVIDIA Data Parallelism Course

Commonwealth Governor's School, Spotsylvania, VA — **May 2023**
Honors/Awards: Valedictorian, National Rural Scholar, SAT Score: 1550/1600 — **GPA 4.0/4.0**

WORK EXPERIENCE

Versara.ai, Cambridge, MA — **September 2024-Present**
Co-Founder

- Founded a startup based on protecting intellectual property from AI scrapers and tools like Perplexity. Raised over $10,000 in pre-seed funding. Successfully built a working prototype that blocks the most capable web scrapers available.
- Created novel data poisoning algorithms, built AWS server infrastructure, and worked on the website: https://versara.ai

Probity Inc., Herndon, VA — **May 2024-August 2024**
Software Engineering Intern

- Developed a new human-in-the-loop machine learning paradigm for Spoken Language Verification called Online Active Learning with Corrective Feedback. Achieved results two hundred times better than traditional training.
- Ran experiments, set up additional servers for computing power on Intel NUCs, optimized algorithms for CPUs, and collected a corpus of over 100 GB worth of South Asian Languages.

Dartmouth Economics Department — **April 2024-August 2024**
Front-End Developer

- Constructed a website for *The Dartmouth Exchange Journal* sponsored by the Dartmouth Economics Department. Built the platform using HTML/CSS and hosted it on WordPress. Has submission and suggestion capabilities.

Digital Applied Learning and Innovation Lab, Hanover, NH — **November 2023-Present**
Machine Learning Engineer and Project Lead

- Developed and implemented advanced machine learning algorithms and data preprocessing methods to enable accurate image recognition of plastic symbols. Became a Neukom Scholar for the development of novel computational techniques.
- Led teams of machine learning engineers on several projects, including PlastiCycle and the National Park Service's BarnacleVision. Perform code review, technical & team leadership, mentoring, conducting design plans, and more.

The Dartmouth Newspaper, Hanover, NH — **September 2023-Present**
Data Visualization Writer

- Conduct surveys across campus, synthesize data into impactful and precise figures, and write articles reporting results.
- Wrote several articles, including an analysis of the reinstatement of standardized tests for the First Year Special Issue.

Thomas Jefferson National Particle Accelerator Facility, Newport News, VA — **June 2022-July 2022**
Engineering Intern

- Created AI-based surrogate models of scientific code for the PHASM project (Parallel Hardware viA Surrogate Models).
- Built and implemented advanced physics-informed neural networks to approximate differential equation solutions related to accelerator experiments. Created bash scripts to streamline the installation process into fewer steps on various OS's.

PERSONAL PROJECTS

Tiny Search Engine — **January 2024-March 2024**

- Developed a crawler, indexer, and querier to return search results in the https://cs50tse.cs.dartmouth.edu/tse/ database. Implements a page-rank algorithm to match advanced queries involving logical conjunctions. Built solely in C.

Skin Cancer Classifier — **August 2021-June 2023**

- Built a high-accuracy convolutional neural network using Fast.ai to classify images of skin as cancerous or not. Built a website to handle uploaded pictures and showcase their predictions and associated probabilities. Used Python and Flask.

Thale Programming Language — **November 2024-Present**

- Building a bytecode interpreter for the programming language Thale. Thale has user input capabilities, classes, first-class functions, inheritance and other OOP principles, variables, file execution or interactive prompts, garbage collection, and more. Created to be a lightweight scripting language using Java but will rebuild in C++ for improved performance.

SKILLS & CERTIFICATIONS

Programming Languages: C, Java, Python, C++, Rust, R, Bash, SQL, HTML/CSS, JavaScript, MATLAB
Skills: Data Analysis, Leadership, Technical Writing, Teamwork, Microsoft Office, Google Suite, Scrum, Creative Thinking
Technologies: *nix Systems, MacOS, Scikit-Learn, LLM APIs, Windows, Git, CMake, Jupyter Notebook, AWS, PyTorch, TensorFlow, Django, Flask, React, IP Network, Docker, Valgrind, gdb, Deep Learning on Multiple GPUs (DDP), CUDA