

DAMIAN EADS

Software Engineer & Tech Lead

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SUMMARY

Erstwhile academic turned software carpenter. Experienced principal-level engineer with a strong track record building software at all levels of maturity from clean-sheet R&D to production. Extensive experience with leading projects from scratch, driving technical vision, and mentoring engineers. Desire role on a high-powered team at the forefront of AI training and inference. Deep background in ML fundamentals bolstered with a strong understanding of systems. Expert-level proficiency in *Effective Modern C++* and machine learning.

SOFTWARE

- Wrote `scipy.cluster` (>1 million downloads)
- Major contributor to real-time Cambridge Video Dynamic C++ library (LIBCVD).
- Contributions to over a dozen different projects including `scikit-image`.

INTERESTS

- Incremental reasoning
- Multi-modal inference
- Model training
- ML Framework API

STRENGTHS

Research Translation

Turning nascent ideas into robust software.

Leadership & Collaboration

Socializing priorities, architecture, and milestones across teams. Driving technical execution. Improving productivity & quality.

Mentorship

Facilitating career discovery and growth.

SKILLS

- **Fields:** Machine Learning, Computer Vision, Deep Learning (cNNs & LLMs), Bioinformatics, Systems Programming, Algorithms, Theory
- **Languages:** C++ (Modern/C++20), C, Python, Go
- **Frameworks:** PyTorch, TensorFlow, ONNX, `scikit-learn`, NumPy, SciPy, Pandas
- **Tools:** `git`, `gdb`, POSIX, Docker, GTest, CMake

TRAINING

University of Cambridge

Postdoc, CV & ML, Machine Intelligence Lab.
2012 | Supervisor: Prof. Roberto Cipolla, FRS

University of California, Santa Cruz

Ph.D., Computer Science (Machine Learning)
2005-2011 | GPA 4.00/4.00, Topic: Object Detection
Supervisor(s): Prof. David Helmbold and Dr. Ed Rosten

Rochester Institute of Technology

BS, Computer Science (Minors: Math, Psychology)
1999-2004 | GPA 3.64/4.00

PROFESSIONAL EXPERIENCE

Sr Principal Engineer

Voltron Data (raised \$120m seed) | 2022-2024

- Designed and built User-Defined Function (UDF) module to enable users to run their own code on a distributed, peta-scale, GPU/CPU query engine ([Theseus](#)).
- Created module to run text inference in SQL queries with LMs. Wrote customized temperature sampling in C++.
- Devised general interface to enable different frameworks (e.g. CUDF, PyTorch) to exchange data with minimal copying.
- Improved representation of distributed query plans to reduce bugs and improve resilience. Improved test coverage.
- Produced & socialized analysis on the state of the codebase that catalyzed multiple projects to improve quality & test coverage.

Volunteer

Food Security, Education, & Civil Rights | 2020-2021

- Provided 100s of hours of unpaid work across multiple NGOs.

Co-founder, Director of Engineering (2012-2016)

Principal Engineer, Head of ML Tech (2017-2019)

WiseIO (VC-backed, bought by NYSE:GE, 2016) | 2012-2019

Co-founded with UC Berkeley Professor Joshua Bloom & others

- Built classical ML framework WiseML for tabular data with 20x speed-up over SoTA at the time. Later, at GE, WiseML powered apps in aviation, renewables, power, oil & gas. Hundreds of models trained and validated on a daily basis. **Featured in [WSJ](#) and [NYT](#).**
- Supplied new features to support automated customer support app. The idea spun off into company AnswerIQ that was acquired separately in 2020 by Freshworks (NASDAQ:FRESH).
- Led framework team including weekly team meetings & 1-on-1s.
- Collaborated on several hiring pushes as team grew.

1st Engineer

Drone.io CI (bought by Harness in 2020) | 2011

- Wrote pre-Docker system (Buddy) for managing containers. Powered Drone's CI for thousands of repos for years.

Staff Research Assistant

Los Alamos National Laboratory | 2001-2010

- Created ML-assisted map creation software from satellite images used across the government. Won multiple awards.
- Served on LGBTIQ+ working group to enhance visibility of community at the national laboratory.