DAMIAN **EADS**

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Software Engineer

SUMMARY

Seasoned engineer & tech lead who is passionate about building software products for all things AI and AI-adjacent. Tech lead who has deep experienced driving implementation at all stages of maturity from R&D to production. Adept at cross-domain collaboration & teamwork. Expert-level proficiency in C++ and Python. Enjoy the thrill of making customers and users happy.

OPEN SOURCE

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

INTERESTS

- Software Engineering (C++ & Python)
- Training and Inference
- Model deployment
- Framework APIs

STRENGTHS

Research to Product 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, Statistics, Computer Vision, Deep Learning (cNNs & LLMs), Bioinformatics, Systems Programming, Algorithms, Theory
- **Languages**: Modern C++14, Python, Go
- **Frameworks**: PyTorch, TensorFlow, ONNX, scikit-learn, NumPy, SciPy, Pandas
- **Tools**: git, gdb, Docker/K8S, Spark, Ray

EDUCATION

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 & 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) | Nov 2022-July 2024
- Created User-Defined Function (UDF) capability (C++) so a user can efficiently run Python code in a distributed GPU SQL query. (Theseus). Led to follow-on projects by other teams.
- Implemented out-of-process execution, multi-interpreter management, and zero-copy, cpu-free data sharing across layers.
- Created UDF prototype to run text inference on subqueries using small language models (SLM).
- Spearheaded effort to improve the quality of C++ codebase.
- Overhauled query representation to facilitate better scheduling.

Principal Engineer

GE Digital | 2017-2019
- We were the first team at GE to successfully deploy ML across multiple businesses units. On a daily basis, we deployed 100s of models to support 10K+ aircraft engines, 25K wind turbines (~1/3 of US), 2K gas & steam turbines, and millions of miles of pipelines.
- Adapted WiseML to handle sensor & image data from diverse industrial assets. (Python & C++)
- Devised memory-efficient data structure (EdgeFrame) that supported fast ingest saturating I/O bandwidth, copy-on-write semantics, off-heap storage, out-of-core state. Published in MLSys.
- Built release infrastructure and cross-team testing tool to ensure combined releases did not break existing customer deployments in mock environment.
- Led ML core tech team including weekly team meetings, 1-on-1s with tech leads, quarterly roadmaps, and hiring pushes.

Co-founder, President (2012-2014), ML Engineer

Wise.io (bought by GE Digital, 11/2016) | 2012-2016
Co-founded with UC Berkeley Professor Joshua Bloom & others
Featured in WSJ and NYT. Raised $2.6m. Sold to GE (<$100m).
- Created ML framework WiseML for tabular data with 20x speed-up over SoTA, and led a small team responsible for it. WiseML was the foundation of Wise's containerized ML application workflow.
- WiseML handled all training & prediction for our customer support app, which integrated into ZenDesk and Salesforce Service Cloud. Customers included Thumbtack, Expedia, Groupon, Lyft, Gusto, and Pinterest. App was spun off into 2nd VC-backed startup AnswerIQ (raised $5m, bought by NASDAQ:FRESH, 2020).

1st Software Engineer

Drone.io CI (bought by Harness, 2020) | 2011-2012
- Built a pre-Docker system (Buddy) for managing containers that powered builds and tests for thousands of repos for years.

Staff Research Assistant

Los Alamos National Laboratory | 2001-2010
- Built CV software to generate maps from satellite images to support wildfire monitoring, agricultural maps, emergency response, and national security. Part of team that devised segmentation for automated cytology slide analysis (licensed to Leica Biosystems).