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Top Skills

Experimental Design

AI Architecture

Reasoning Skills

Honors-Awards

Honors at Entrance

Cum Laude

Deans List

Eagle Scout

NSF REU Grant

Publications

The Commoditization of Deep Learning

Human Terrain: 21st Century War Stories and Essays

A Primer on Quantum Computing and Algorithms

Numeraire Whitepaper

Tracing the Line

Patents

Apparatuses and methods for evaluation of proffered machine intelligence in predictive modelling using cryptographic token staking

Geoffrey Bradway

Artist, AI guy, Philosopher, Machine Maker, Entrepreneur | Building Beautiful Things, Solving Hard Problems, Learning about Everything | Let's Build a Wonderful Reality

New York City Metropolitan Area

Summary

What do fractals, lasers, and dinosaurs have in common? Me.

Not your average AI guy, artist or entrepreneur.

Of course, I can program up a storm, make any set of equations come to life, and wade into the latest papers. But I'm also a creative who has run his own companies, built out teams, and I love to share my work in ways that are clear and straightforward via talks, essays, blogs, and papers.

However, all of those phrases don't tell the whole story. Over the course of my career, I've worked on all sorts of wild projects, including such highlights as:

- Laser lens design for nanolithography
- Random fractal generation
- Robot art
- A/B testing financial markets
- Cryptocurrency design
- One of the largest fashion psychology projects ever run
- A 30-ft long fire breathing psychedelic turtle art car

I even helped excavate a new species of dinosaur!

In addition, over the past five years I got my startup in YC, my art into galleries, museums, books, and esteemed private collections, and I helped lead a new AI initiative at a Fortune 500 and building out a team of 80+ people.

Professionally, I am a:

Philomath: I am driven by an insatiable curiosity and a love of connecting the dots to figure out the big picture. The harder the problem, the more driven I am.

Creative: I love working on the fly, drawing excitement from new information, changing environments, and unexpected detours. In the words of Richard Feynman: "What I cannot create, I do not understand."

Strategist: I excel at seeing the big picture, enabling me to navigate through clutter to find the most effective solutions.

♥#Empath: I understand how people feel when using a product or service and use this sensibility in my design work. I believe products are made to make living life better, and understanding the human element is the most important component to making that happen.

Storyteller: I understand the power of clear and compelling communication. During the past 8 years I gave over 15 public facing talks about my work and many more internally. Additionally, I've been featured in two books and authored several essays.

Got some buck wild idea you wanna jam on? Come say hi over at geoff.bradway@gmail.com

Experience

Buddhist Monastery

Resident

July 2023 - March 2024 (9 months)

Chop wood, carry water

Phantasmic AI

AI Project Lead

August 2021 - June 2023 (1 year 11 months)

New York City Metropolitan Area

I ran my own AI consultancy firm. We had one primary client, a Fortune 500 fashion company. We reported directly to the CTO and were responsible for designing and implementing new AI R&D and product initiatives

internally. Afterwards, I helped my coworkers spin up an AI Fashion Startup, Supermodel.

- * Ran the largest fashion survey ever conducted (10k respondents) across demographics, psychometrics, cultural consumption, and personal aesthetics
- * Brought on multiple teams of developers and ended up building out a team of 80+ people
- * Architected several Fashion AI tools such as trend forecasting, geospatial targeting, ROI lift estimators, and CV outfit detectors
- * Created a qualtrics-like surveying platform with fashion specific data collection tools
- * Routinely made budgets, timelines, and product planning documents
- * Routinely made presentations for the C-Suite and Board of Directors

Me

Artist

August 2019 - August 2021 (2 years 1 month)

AI + robots + computer graphics

During my time as an artist, I created AI and ML programs that would generate SVG illustrations and I would plot them with a CNC pen plotter. While doing this I got decent traction on social media (10k followers on IG, 1M+ views on tiktok), got gallery representation, and got my work into high profile locations (museum show, private collections, etc)

Collections

- * Topaz Page-Green & Emmanuel Roman (board of trustees for the Tate Foundation)
- * Nicole Maloney

Shows

- *The de Young Open, 2020
- *Group Show, City Art Gallery, Sept 2020
- *Virtual group show, Greenpoint Gallery, Dec 2020
- *Won a solo show

Books

- *Featured in A.R.E. Book by Generative Hut x Vetro Editions
- *Featured in Tracing the Line by Generative Hut x Vetro Editions

GeoPredict(YC W19)

Cofounder and Chief Analytics Officer

May 2018 - December 2018 (8 months)

San Francisco Bay Area

GeoPredict was a startup that used machine learning to help investors price mineral rights. As CAO I led several key components such as

- Creating an end to end analytics pipeline to predict where operators would drill for oil and gas
- Changed our product development culture to prioritize quick iteration cycles based off of extensive customer feedback
- Helped develop and change our product from a point where we had little customer traction to the point where we had paid customers and several paid pilot programs
- Led the charge for us to get accepted in YC

Numerai

VP of Engineering

January 2017 - February 2018 (1 year 2 months)

San Francisco Bay Area

Numerai is a hedge fund that pays data scientists to predict the stock market using obfuscated data and cryptocurrency. I was head of all quantitative projects, which included

- * Designed and created our portfolio optimizer and back testing engine, which ~2x'd our Sharpe Ratio
- * Designed the incentive structure behind our cryptocurrency, Numeraire (NMR) [currently worth ~250M]
- * Created machine learning methods for both the data obfuscation and mixing user models
- * Designed our data tournament and implemented anti-fraud systems via reusable holdout methods and differential privacy

Google

1 year 10 months

Research Engineer at Deepmind

July 2015 - March 2016 (9 months)

Worked closely with research scientists 1-1 to build out production grade research. Projects included

- * Created an octopus arm in Mujoco
- * Created a jenga block tower simulator and CNN to detect which direction an unstable tower would fall
- * Created an AI that would learn a hierarchical probabilistic graph representing the distribution, orientation, scale, etc of furniture, and another system to sample from that distribution and render pictures of it

Software Engineer at Youtube

June 2014 - July 2015 (1 year 2 months)

Mountain View, California, United States

Youtube Experimentation Framework, June 2014- July 2015

- * Worked on large scale data pipelines, code health, critical core YT infrastructure.
- * Experience with Mapreduce, cloud storage, cloud computing, data analytics, large scale productionized software, and statistical experimentation at scale.
- * Fully designed and implemented several projects, collaborated on several cross product area projects.

University of Utah Laboratory For Experimental Economics and Finance

Researcher

September 2013 - May 2014 (9 months)

- * Designed and implemented financial experiments.
- * Network Development and Convergence in OTC markets
- * The effects of Algorithmic Trading in well known markets
- * Using Reinforcement Learning to learn trading in Combined Value Order Markets

Caltech Laboratory for Experimental Finance

Software Engineer

January 2013 - May 2014 (1 year 5 months)

- * Developed Flexemarkets V2.0 software. Flexemarkets is an experimental software where users can design and test market structures in an experimental setting.
- * Gave multiple software presentation at a variety of conferences and universities, namely University of Zurich, World Meeting for the Economic Science Association, University of Utah, etc.
- * Added capabilities for users to use python scripts for algorithmic trading
- * Gained experience with large web systems and tools including SQL, Maven, SVN/ subversion, Spring, functional reactive programming, ZK

UZH / EPFL

Financial Research Analyst

May 2013 - August 2013 (4 months)

Zürich Area, Switzerland

Worked on two finance internships concerning how traders buy and sell on news as well as numerically estimating novel economic results

Farmer Lab

Research Assistant

September 2012 - May 2013 (9 months)

University of Utah

For this role, I received a USET grant to help an evolutionary biology lab set up with computational photogrammetry setup.

- * Figured out how to do 3D reconstructions from photos, using a mix of existing python code and meshlab.
- * Created ~10 3d turtle models from images of galapagos tortoise for a museum for the blind
- * Figured out how to create a 3d model of an iguana lung from a CT scan for research purposes
- * Helped excavate a new kind of dinosaur Mierasaurus bobyongi, as part of the computational paleophysiology class this work was attached to. I was lucky and found the feamur
- * Build a computer they could run everything on for the Paleophysiology class

GE Healthcare

Software Engineer Intern

September 2012 - January 2013 (5 months)

This was a small R&D project I ran with GE and a university lab to see if we could do 3d tracking of surgical instruments using a microsoft connect

- * In charge of finding and creating a team of 4 people
- * Lead developer and project manager of a University of Utah research team consisting of 3 developers in collaboration with GE healthcare.
- * Responsible for giving bi weekly demonstrations to GE representatives, solving abstract projects and implementing concrete software solutions, as well as delegating work to my team

LumArray, Inc.

Software Engineering Intern

May 2012 - August 2012 (4 months)

- * Developed novel techniques and algorithms for Computer Generated Holograms.
- * Worked closely with the co-founder of LumArray to develop new methods
- * Integrated the new solution into existing Matlab software.

University of Utah

Mathematics Researcher

May 2011 - May 2012 (1 year 1 month)

- * Wrote proposals and procured three National Science Foundation grants for undergraduate research
- * Worked closely with mathematics professor exploring abstract theory, and developing concrete analytic solutions in terms of small programs and explicit solutions.
- * Analysis of Convex Tree Structures, Nick Korevarr
- * Homology of Data Sets, Nat Smale
- * Modeling Stock Returns with Jump Processes, Jing Yi Zhu

Education

University of Utah

Master's Degree, Mathematical Statistics · (2011 - 2014)

University of Utah

Bachelor of Science (BS), Mathematics · (2011 - 2014)