CHARLES DAVI
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EXPERIENCE

Black Tree AutoML (December 2016 to Present)
Founder; New York, U.S.A.; Stockholm, Sweden

I've developed a library of AutoML and scientific computing algorithms that allow essentially any deep learning problem to be solved in low-degree polynomial time, marketed as Black Tree AutoML. The runtimes are unprecedented, and orders of magnitude faster than typical methods such as Neural Networks. The fastest algorithms have runtimes of roughly 4 seconds for every 25,000 training rows, on a desktop / laptop, producing runtimes that are a fraction of a second for small datasets. Accuracies typically range from 85% to 100%, for UCI and MNIST industry benchmark datasets. The actual application runs in a GUI developed in Swift, though the underlying A.I. software runs in Octave. I have been programming my entire life, and can develop software in Octave, Swift, and C++, and can quickly learn new languages.

BlackRock, Inc. (August 2013 to December 2016)
Vice President, Legal & Compliance; New York, U.S.A.

At BlackRock, I was part of a global legal team supporting the firm's trading, portfolio management, and institutional sales teams. I was the lead attorney on a $3 billion restructuring, analyzing and negotiating complex transaction and disclosure documents on a large scale, working closely with portfolio managers to ensure that restructured terms satisfied the portfolio managers' economic expectations, but still met the requirements of new regulations. In partnership with the Government Relations team, I delivered in-person testimony at the S.E.C. in D.C. to U.S. Government regulators, and drafted regulatory comment letters. I streamlined processes for new agreements, drafting global form agreements, and leading monthly global meetings between trading and legal to ensure terms were consistent on a global basis. I also gave presentations to senior management, including the firm's COO and GC, and interacted often with business group leaders.

McDermott Will & Emery LLP (September 2008 to July 2013; Summer 2007)
Associate, Financial Institutions Advisory Group; *Summer Associate*; New York, U.S.A.

At McDermott, I represented banks, broker-dealers, and asset managers (including BlackRock), drafting and negotiating transaction and disclosure documents for structured finance and general corporate matters. I drafted full suites of transaction documents, disclosure documents, and opinions for securitization transactions, private equity and hedge fund formations, and LLC and LP agreements for operating companies, funds, and SPVs. I also worked on restructurings and insolvencies, and complex U.S. and global tax issues related to structured finance transactions.

The Atlantic (January 2009 to March 2013)
Author

Author of sixteen articles on finance, economics, and global trade, cited by industry professionals and regulators.

Ragnarok Recording (September 1994 to May 2005)
Audio Engineer; Apprentice; New York, U.S.A.

At Ragnarok, I began as an apprentice to the studio's owner at age 12, soldering wires, cleaning before and after sessions, and worked my way up to being one of three audio engineers at the studio. I recorded a wide variety of music, including hip-hop, rock, jazz, salsa, and classical, using both analog and digital audio processing. I used these skills to build a home studio, and record over thirty compositions, including classical chamber music, rock, folk, jazz, and experimental electronic music, all available on soundcloud https://soundcloud.com/opensecret.

EDUCATION

New York University School of Law (J.D., May 2008)
Honors: Dean's Scholarship.

Hunter College - City University of New York (B.A., Computer Science, May 2005)
Honors: *magna cum laude*;
                   Computing Research Association contest, *Finalist* (top 20 in U.S.) (2005);
                   National Science Foundation Grants (2003, 2004, and 2005); Sigma Xi.