

- Education
 - **BA**, Cornell University, cum laude in mathematics, May 2001
 - **PhD**, University of California at Davis, mathematics, Dec 2007
 - **MS**, Rutgers, mathematical finance, Jan 2014
- Highlights
 - Built and maintained production systems handling large amounts of funds
 - Worked in multiple jobs with strong testing culture
- Employment
 - **Curve DAO**
 April 2022 - ongoing, *Grant recipient, risk team*
 - Identify and assess risks to Curve stakeholders for gauge emissions voting.
 - Advise on smart contract security for due diligence on protocols impacting Curve.
 - **APY Finance**
 Aug 2020 - current, *Lead engineer, smart contracts and backend services*
 - Created and deployed contracts controlling \$80M TVL (Solidity and Ethers/Hardhat).
 - Architected unique system to securely manage and value a portfolio of Convex positions.
 - Possess in-depth knowledge of Curve and Convex protocols.
 - Created and maintained backend calculations and REST services.
 - **Capital One**
 Apr 2019 - Nov 2020, *Senior engineer / tech lead*
 - As hands-on lead for Python-based access to data lake, planned roadmap, created work items, established best practices in coding and testing.
 - Collaborated cross-functionally with data scientists and ML group to craft requirements for diverse environments from laptops to distributed clusters.
 - **LoanStreet Inc.**
 Mar 2018 - Feb 2019, *Senior software engineer in financial technology*
 - Re-architected loan syndication tech stack using domain-driven design.
 - Managed team of 4, gathered requirements, set best practices for code quality, Git, and CI.
 - Wrote Docker files and Python libraries for event-sourced microservices using RabbitMQ.
 - **MIO Partners** (McKinsey & Co subsidiary)
 Mar 2016 - Feb 2018, *Quant developer for trading*
 - Created Python-based portfolio management tools used interactively for analysis and as components in report-generation processes deployed in Docker containers.
 - Created and maintained daily trading opportunity charts reviewed by CEO. Data was processed from a variety of sources including emails and databases.
 - **JP Morgan Chase**
 Mar 2015 - Mar 2016, *Quant developer for regulatory capital*
 - Automated Excel and Access-based manual processes as robust server processes, with event-driven GUI, using proprietary Python-based environment (Athena).
 - Frequent communication and signoffs from business users were required, with careful documentation showing accuracy of results.
 - **Nomura**
 Feb 2014 - Mar 2015, *Front office developer for electronic trading*
 - Created a low-latency order book generator that used Tibco Rendezvous to aggregate market-data and pricing and communicate with smart order router and GUI (Java/Linux).
 - Primary maintainer of automated market-maker for USD swaps and swap futures.
 - Created a FIX trade feed from ION trading platform into trade management system.
 - **University of California, Davis**
 2012 Lecturer
Head instructor for courses in calculus, linear algebra, and probability
 - **Bard College**, BHSEC program
 2009 - 2011, Assistant Professor
Oversaw the development of accelerated math curriculum for early college program.
 - **University of Victoria**
 2008 - 2009, PIMS Postdoctoral Fellow
Conducted mathematical research in low-dimensional topology
- Personal
 - Naturalized U.S. Citizen; moved to the U.S. at age eight.