Mike Rolish
merolish@mit.edu
http://web.mit.edu/merolish/www/

Lakeville, Minnesota, USA

Experience

- **Douro Labs** — Remote (Minnesota)
  Software Engineer — March 2025 - present

  - Worked on real-time market data services for the Pyth Network.
  - Worked on integrations with various blockchains and platforms, including Hyperliquid and Stripe.
  - Rust, some Python and TypeScript.

- **Warlock Labs** — Remote (Minnesota)
  Software Engineer — July 2024 - January 2025

  - Researched and worked on initial development of an MEV searcher for Ethereum mainnet.
  - Miscellaneous crypto/DeFi research and minor projects.
  - Rust targeting Ethereum (including some Solidity and Huff).

- **Monachil Capital Partners** — Remote (Minnesota)
  Senior Software Engineer — August 2023 - June 2024

  - Developed and maintained data pipelines and analytics for a private credit fund.
  - Python on Windows and Azure.

- **Geode Capital Management** — Boston, MA
  Principal Software Engineer — August 2022 - July 2023

  - Worked with a small team for several months to build out a new data pipeline prototype.
  - Kotlin, Kafka, Flink, Iceberg, PostgreSQL, protobuf/grpc.
  - Developed and maintained analytics for the commodities PM team.
  - R and Python on Linux.

- **Dexterity Capital** — Remote (Massachusetts)
  Senior Software Engineer — November 2021 - June 2022

  - Developed and maintained exchange connectivity and backtesting infrastructure at a crypto HFT firm.
  - Java and Python on AWS.

- **Venmo** — Auburndale, MA/Remote (Massachusetts)
  Senior Software Engineer — September 2019 - October 2021

  - Engineer on the Payments team. Worked on the backend for features supporting millions of users including P2P payments, business profiles, and American Express integration.
  - Worked with SRE and infrastructure teams as on-call support for operations and deployments.
  - Python on AWS, including Django, MySQL, and MongoDB.

- **Walleye Trading**   Plymouth, MN/New York, NY/Boston, MA
  Software Developer   October 2017 - August 2019

  – Developed and maintained software infrastructure for a technology-driven hedge fund, including
    execution, analytics, and back office.
  – Java on Windows and Linux.

- **Bloomberg**   New York, NY
  Senior Software Developer   February 2013 - September 2017

  – Developed and maintained software infrastructure for options order routing and algorithmic
    trading at the Tradebook agency broker.
  – Mainly C++ on AIX and Linux.
  – Spent six months in the Equity Application Framework group. Worked on adapting Cassandra
    and HBase to Bloomberg infrastructure.
  – C++, Java, Python on Linux.

- **Volant Trading**   New York, NY
  Quantitative Developer   March 2010 - October 2012

  – Developed and maintained software infrastructure at a high-frequency options market maker.
    Worked with analysts and traders to implement and improve analytics and quant trading
    strategies.
  – Monitored trading systems and daily data processing.
  – Mainly C++ on Linux. Some Perl, Python, SQL, bash. Some C# on Windows.

- **HBK**   New York, NY
  Quantitative Developer   October 2007 - November 2009

  – Developed and maintained software infrastructure in the statistical arbitrage group at a
    multi-strategy hedge fund. Redesigned automated trading application to use multiple threads.
    Improved simulation and reporting environments.
  – Wrote scripts for research and reporting functions.
  – Ran simulations and monitored trading.
  – C++, Perl, SQL on Windows and Cygwin.

- **Tower Research Capital**   New York, NY
  Software Developer   July 2005 - October 2007

  – Developed and maintained market data and trading infrastructure at a proprietary trading firm.
  – Provided software support for analysts.
  – Wrote programs and scripts for research, risk management, and accounting functions.
  – C/C++, Perl, Python on Linux.

- **MIT Department of Biology**   Cambridge, MA
  Research Assistant   June 2001 - August 2003 (summers), June 2004 - June 2005

  – Research assistant in a computational biology lab.
  – Wrote programs to simulate mRNA splicing and locate exons in human genomic sequences.
  – Wrote GUI applications to visualize genetic data.

Education

Massachusetts Institute of Technology   Cambridge, MA
- Master of Engineering in Electrical Engineering and Computer Science. September 2005.
  Bachelor of Science in Computer Science and Engineering. June 2005. GPA: 4.7/5.0.

Indiana University East   Remote
- Bachelor of Science in Mathematics. Expected May 2026. GPA: 4.0/4.0.
  Various subjects in pure and applied mathematics.

Cherry Hill High School West   Cherry Hill, NJ
- Diploma. June 2000. GPA: 4.0/4.0. Valedictorian. SAT I: Math: 800; Verbal: 800.
  Awards: National Merit Scholar; AP National Scholar; Member, 2000 US Physics Team.

Skills

Programming languages: C/C++, Java/Kotlin, Rust, Python, SQL.
Earlier: Scheme, Perl, Assembly, QBasic.

Cloud platforms: Basic experience with AWS, Azure (AZ-900 certification), GCP.

Operating systems and development environments: Longtime GNU/Linux, emacs, and bash
loyalist. Comfortable with JetBrains IDEs. Limited Windows development experience. Competent
user of most modern platforms including Unix-likes, Windows, macOS, Android, and iOS.

Mathematics: Undergraduate-level understanding of calculus, linear algebra, probability and statistics,
data structures and algorithms, number theory, abstract algebra, and real analysis. Clearly a fan of
LaTeX.

Finance: Passed CFA Level I exam. Experience with software handling market data and trading for
equities/futures/options/crypto/private credit. Bloomberg Terminal experience. Basic Excel.

Crypto/DeFi: Various Ethereum tooling including Alloy, Foundry, Solidity, and Huff. Some familiarity
with Uniswap and other DeFi platforms. Some experience with CeFi market data and trading APIs.

Other: Extensive musical performance experience across several instruments and genres, including
guitar/bass/piano/voice. Experienced swimmer/cyclist/runner and completed several marathons and
triathlons.