



EXPERIENCE

FOAM, Senior Engineer, Founding Member, NYC — Sept 2017 - Jan 2021

- Architected and managed development of all FOAM backend services, including REST APIs, notification systems, and novel stream processing pipelines for indexing and caching Ethereum data.
- Architected and implemented stream processing pipelines for FOAM's localization protocol, transforming raw pseudorange measurements from FOAM's custom hardware stack into GPS coordinates.
- Implemented extensive tests and simulators for FOAM's full stack applications and localization protocol.
- Researched Ethereum scaling solutions, including Tendermint and Plasma integrations for the FOAM stack.

BlockApps, Senior Platform Engineer, NYC — Jan 2017 - Sept 2017

- Designed and implemented novel Ethereum blockchain solutions for private enterprises, specifically in the areas of supply chain management and identity and access management systems.
- Maintained and developed BlockApps's Strato platform, a proprietary Ethereum platform with RDBMS connectors and REST APIs.

VFILES, Full Stack Engineer, NYC — Jan 2016 - Jan 2017

- Wrote endpoints for and improved the REST API and notification systems backed by Elasticsearch, Postgres, and Neo4j databases.

EDUCATION

PhD candidate, Mathematics, Central European University, Budapest, Hungary — 2014 - 2015

- Thesis title: *Zeta functions of Normal Surface Singularities*

MSc, Mathematics, University of Paris-Saclay, Orsay, France — 2012 - 2014

- Thesis title: *The Riemann Hypothesis for Hypersurfaces over Finite Fields*

BSc, Mathematics, University of Washington, Seattle, Washington — 2006 - 2010

OPEN SOURCE PROJECTS

[kepler](#): Haskell language ABCI server and SDK for developing Tendermint/Cosmos blockchain applications.

[chanterelle](#): A build/deployment system for Ethereum smart contracts written in PureScript.

[purescript-web3](#): The PureScript client library for the web3 API.

[purescript-web3-generator](#): Generate FFI bindings for Ethereum smart contracts in PureScript.

[hs-web3](#): The Haskell client library + kitchen sink for the Ethereum and Polkadot web3 APIs.

[purescript-deck-gl](#): Extensive PureScript bindings for Uber's [deck.gl](#) UI geospatial visualization library.

TALKS

Devcon 5: Functional Programming For Ethereum ([video](#) | [slides](#)) – October 2019

May Day-Convuluted Weekend: PureScript Servant ?! ([video](#)) – May 2019

NYC Haskell Users Group: Data Processing and Ethereum ([video](#)) — June 2018

May Day-Convuluted Weekend: Haskell/PureScript + web3 ([slides](#)) — May 2018

NYC PureScript Users Group: Introducing purescript-web3 ([video](#)) — Dec 2017

SCHOLARSHIPS, GRANTS, PROGRAMS

Recurse Center participant, New York City — 2015

Algant Excellence Scholarship, Algant Consortium — 2012

Fulbright Student Researcher Grant (Mathematics) — 2011

Budapest Semesters in Mathematics, Budapest Hungary — 2010

SLANGUAGES & TECHNOLOGIES

Haskell, PureScript, Rust, Python, Postgres, Elasticsearch, Redis, Docker, Kubernetes, Kafka, ZeroMQ