Aditya Diwakar

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github.com/adityaxdiwakar

(470) 302-9648

Education

Georgia Institute of Technology — Atlanta, GA

Dual B.S. in Computer Science, Mathematics; Major GPA: 4.0 — *Aug 2019 – Dec 2023*

Dual Enrolled: 2019 – 2020 (Part-Time), 2020 – 2021 (Full-Time)

Concentration: Systems & Architecture, Intelligence; Probability & Statistics

Courses: *Compilers*, *Systems & Networks*, Computer Organization, Machine Learning, Stochastic Processes, Algorithm Design, Numerical Analysis, Probability & Statistics, Combinatorics, Abstract Algebra

Experience

D.E. Shaw & Co. – Site Reliability Engineering — New York, NY

Incoming Software Engineering Intern — *May 2022 – Aug 2022*

Georgia Tech – College of Computing — Atlanta, GA

Undergraduate Teaching Assistant for Algorithm Design — *Jan 2022 – Present*

Loganov Data — Remote

Operations/Research Head, Founder — *Jun 2020 – Jul 2021*

- Forecasted natural gas demand volatility with 92% accuracy through probabilistic/regressive models
- Ingested weather vendor data 84% faster than industry standard with low-level parallel processing
- Provided low-latency data reliably to hundreds of end-users with RESTful & GraphQL APIs

Code the Universe — Kansas City, KS

President, Board Member — *Apr 2020 – Jul 2020*

- Provided learning resources to ∼2,500 students while managing 30 direct reports
- Rebuilt registration system with in-house course registrars resulting in 100% increased registrations
- Reduced redundant administrative oversight by 50% by implementing robust policies and processes

NetVPX Hosting LLC — Boston, MA

VP of Technical Operations, CTO — *Apr 2020 – Jul 2020*

- Led initiative developing custom hosting provisioning tools and additional product SKUs
- Ensured 99.97% site reliability by maintaining and signing SLA obligations
- Recruited technical staff ensuring same hour ticket response time and smooth onboardings

Projects

- **OCamLC-3:** Developed assembler for LC-3 assembly with custom lexing, parsing, and assembling using OCaml and Regex. Implemented CLI with outputs for lexed, parsed, and assembled states.
- **Open Exchange:** Implemented exchange suite with OCaml and NYSE FIX protocol supporting multiple order types; outperformed gold standard performance by profiling data structure designs with `ocamlprof`. Designed with versatility in mind using failsafe matching engines, cancel fairies, etc.
- **Flux:** Provided a developer friendly API to communicate with TDAmeritrade data provisioner using Go, Websockets, and a robust state machine. Built highly flexible translation units converting streamed message data into a requester/receiver data model. Achieved 100% tested code coverage.
- **Blueberry:** Exposed CQG data feed providing high-throughput low-latency top-level quote access. Consumed by endusers through various means such as RESTful or GraphQL APIs, or raw TCP/UDP sockets. Optimized for performance, capable of millions of daily message distributions.

Skills Summary

Languages:	Go, Python, Java, C/C++, OCaml, Rust, SQL
Tools:	Kubernetes, Docker, CI/CD, Sentry, Kafka, Nginx, Caddy
Infrastructure:	Routing/Switching, Load Balancing, Proxying, Delivery Networks, Matching Engines
Finance:	Futures, Options, Stochastics, Hypothesis Testing, Commodities, Volatility