Aditya Diwakar

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(470) 302-9648

EDUCATION

Georgia Institute of Technology — Atlanta, GA
Dual B.S. in Computer Science & Mathematics, GPA: 3.95 / Major GPA: 4.0 — Aug 2020 – Dec 2023

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

Concentrations: Systems & Architecture, Machine Learning; Probability & Statistics

Courses: *Processor Design*, *Operating Systems*, *Real Analysis*, Automata Theory, Systems & Networks, Computer Architecture, Machine Learning, Stochastic Processes, Algorithm Design, Numerical Analysis, Combinatorics

EXPERIENCE

Citadel Securities — Atlanta, GA
Incoming Software Engineering Intern — May 2023 – Aug 2023

D. E. Shaw & Co. — New York, NY
Software Engineering Intern — May 2022 – Aug 2022

- Reduced cost of automation & SRE toil by designing a framework to easily deploy infrastructure workflows.
- Implemented GSSAPI SSH handshake to programatically interact with Kerberos-secured host machines.
- Built dial tone service to ensure reliability during outages & monthly releases by leveraging Temporal.io.
- Increased automation workflow visibility by providing Elasticsearch integration by default.

Loganov Data — Remote
Founder, Software Engineer — Jun 2020 – Jul 2021

- Forecasted natural gas demand volatility with 92% accuracy through probabilistic & regressive models
- Ingested weather vendor data 6x faster than industry standard through low-level parallel processing

NetVPX Hosting — Boston, MA
VP, Software Engineer — Oct 2018 – Jul 2019

- Led initiatives to develop custom hosting provisioning tools and additional product SKUs.
- Ensured 99.97% site reliability SLA obligations by deploying comprehensive monitoring suite.

ACADEMIA

Georgia Institute of Technology — Atlanta, GA
Undergraduate Researcher — Habanero Extreme Scale Software Lab — Aug 2022 – Present

Georgia Institute of Technology — Atlanta, GA
Lead Teaching Assistant — Jan 2022 – May 2022

- Taught algorithm design, recurrences, graph theory, and complexity theory to 200+ students.
- Ensured course and student success by organizing assignments/exams and delegating work for other TAs.
- Achieved 4.9/5 student rating through course management, grading orchestration, and transparency.

PROJECTS

- **OCamLC-3:** Developed assembler for LC-3 assembly with custom lexing, parsing, and assembling. Created CLI with outputs for lexed, parsed, and assembled states. Written in OCaml.

- **Open Exchange:** Implemented exchange in OCaml supporting multiple order types; profiled & optimized data structures with `ocamlprof`. Supported redundant matching engines & cancel fairies.

- **Flux:** Provided developer friendly Go SDK to communicate with TDAmeritrade WebSocket data provider. Built model to convert from subscription data model to requester/receiver model.

SKILLS SUMMARY

Languages:	Go, Python, Java, C, C++, OCaml, Rust, SQL, LaTeX
Tools:	Vim, Kubernetes, Docker, CI/CD, Kafka, Nginx, InfluxDB, Prometheus, Grafana
Infrastructure:	Routing/Switching, Load Balancing, Proxying, Delivery Networks, Matching Engines