

Aditya Diwakar

aditya.diwakar@gatech.edu

github.com/adityaxdiwakar

(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: *High Performance Computing*, Combinatorial Analysis, Compilers, Operating Systems, Real Analysis,
Computer Architecture, Automata Theory, Machine Learning, Stochastic Processes, Numerical Analysis

EXPERIENCE

Citadel Securities – Low Latency Quant Research

Chicago, IL

Software Engineering Intern

May 2023 – Aug 2023

D. E. Shaw & Co. – Systems

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.

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

Remote

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 — Secure Hardware Group

Jan 2023 – Present

- Tan Y., Diwakar A., Jagielo J., Mooney V. FPGA Compiler for Register Allocation. *MECO'23*.

Georgia Institute of Technology

Atlanta, GA

Undergraduate Researcher — Habana 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.
- Achieved 4.98/5 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 TD Ameritrade WebSocket data provider. Built model to convert from subscription data model to requester/receiver model.

SKILLS SUMMARY

Languages: C++20, Go, Rust, C, OCaml, Python, x86 & ARM Assembly, Java, Rust, \LaTeX
Tools: Linux, Docker, Git, CI/CD, Prometheus, Grafana, Profilers, SQL
Infrastructure: Routing/Switching, Multicast, Distributed Systems, Low Latency
Interests: Classical Statistics, Travel, Espresso, Personal Finance, Gardening, Swimming