Akshay Chiwhane

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Education

University of Michigan
Ann Arbor, MI

B.S.E in Computer Science
September 2014 – April 2018

- **Key Courses:** System Design in C++, Distributed Systems, Operating Systems, Networks, Web Databases & Information Systems, Machine Learning, Artificial Intelligence, Computer Organization, Data Structures and Algorithms, Linear Algebra, Probability

Experience

Anduril Industries
Seattle, WA

Software Engineer – Platform Infrastructure (Live Data Systems)
May 2021 – Present

- Core maintainer of Flux-KV, Anduril's distributed database that functions as a real-time replicated eventually-consistent key-value store backed by conflict-free replicated data types (Go, FoundationDB, Kubernetes, NixOS)
- Refined and enabled core use cases by leveraging distributed data types (Go)
- Built SDK and internal tooling on top of Flux-KV to onboard external use cases from other teams (Go)
- Drove key demo and production milestones by designing real-time messaging system to seamlessly interface and communicate with multiple military communication systems (Go, Kubernetes)
- Defined best practices, rules of engagment, project planning process, and code review process for team (Github Projects, Jira)

DRW
Chicago, IL

Senior Software Engineer – Risk Management
April 2019 – April 2021

- Enabled novel, real-time analysis and event detection workflows by designing and implementing real-time derivatives risk decomposition system (Python, Elixir, Kubernetes)
- Redesigned and scaled existing settlement risk analysis pipeline using a functional, reactive architecture (Elixir, C++, Kubernetes)
- Managed and mentored apprentice to successfully deliver greenfield services from initial concept to production deployment (Elixir, Kubernetes)

DRW
Chicago, IL

Junior Software Developer – Trading Infrastructure
July 2018 – March 2019

- Improved API response times of internal trade volume monitoring tool by 30x (Ruby on Rails)
- Implemented and integrated an LCH margin calculation tool into internal margin calculation framework to simulate portfolio margins under different market conditions (Clojure)

DRW
Chicago, IL

Software Engineering Intern – Soybean Options Desk
June 2017 – August 2017

- Provided insight into new trading strategies for agriculture options markets by building data analysis tools and high-throughput backtesting pipelines for traders (Python, numpy, pandas, slurm)
- Improved efficiency of trade capital monitoring system by writing Tableau Web Data Connectors (JavaScript, Flask)

Deepfield Networks
Ann Arbor, MI

Software Engineering Intern
May 2016 – September 2016

- Improved speed and robustness of critical part of DDoS (Distributed Denial of Service) attack detection pipeline by architecting, developing, and optimizing DDoS analysis library (Python)
- Gained familiarity with Agile and scrum (Atlassian Jira), test-driven development, and continuous integration methodologies (Jenkins)

Skills

Programming Languages: Go, Elixir, Python, C++

Frameworks/Technologies: gRPC, FoundationDB, Kubernetes, Erlang/Elixir OTP, PostgreSQL, Django, Tornado, Flask, Redis, Jupyter Notebooks, scikit-learn, pandas, MySQL, slurm, Hadoop, MapReduce

Languages: English (native fluency), Marathi (native fluency)