

Arjun Nayak

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EDUCATION

The University of Texas at Dallas

Bachelor of Arts in Computer Science

Richardson, TX

Aug. 2023 – Dec. 2026

EXPERIENCE

Data Analyst Intern

June 2024 – August 2024

Dell

Round Rock, TX

- Prototyped Jupyter Notebooks for Dell IT Support to analyze 10% of Tech Support Interactions
- Worked with multiple teams to unify data lakes and correlate new data points for future analysis.
- Leveraged Python and SQL with Celonis Process Mining to analyze performance improvements in knowledge base usage
- Implemented Power BI automation for recurring health status on Knowledge Base documents

Software Team Lead 

Jan. 2024 – Present

Dallas Formula Racing

Richardson, TX

- Grew software team membership from 10 to 40+ active members over 2 semesters.
- Deployed a Highly Available Kubernetes cluster on bare metal infrastructure to scale micro-service driven applications built by the team.
- Raised \$5,000 for sustaining cloud apps and long term development goals from the Computer Science Department.
- Leveraged Kafka to handle 1000+ datapoints/s with continuous timeseries aggregations visualized in Grafana
- Deployed Cloudflare Zero Trust and Cloudflare Ingress Kubernetes Operator to securely tunnel public services

Software Developer

Aug 2023 - Dec 2023

- Redesigned a real-time data acquisition system using CAN, LabJack, and a Raspberry PI to create a temporary sensor data collector for the team.
- Improved the speed of data acquisition systems on the car by 20x using specialized fast data input streams.
- Deployed a Logging and Car Alerting system using Cloudflare Workers and Email Routing
- Deployed a streaming analytics dashboard using Telegraf, Kafka, Loki, and Grafana for a distributed car data analysis platform

PROJECTS

Friskytool Discord Bot | *Python, Docker, MongoDB, Redis, RabbitMQ, Microservices* January 2019 – June 2023

- Developed and advertised a discord bot running in over 32,000+ Discord servers with a peak daily usage of 200k user interactions. frisky.dev
- Implemented Autoscaling with RabbitMQ and a Microservice based Architecture
- Integrated Google LLMs for automated user support and error classification
- Ran a Redis Cache service with MongoDB on bare metal to handle 10GB+ bot data.
- Massive observability layer built with DataDog, Sentry.io, and Cloudflare Analytics with a [Public Dashboard](#)

RemoteIDE | *Kubernetes, Traefik, Rust, Python, Flask, Next.js* [Monorepo](#)

May 2022 – May 2023

- Developed a vscode server tool for my computer science teacher to teach students how to use IDEs while preserving academic tooling over Microservice systems
- Autonomous scaling of vscode-server images with backups, load balancing, and idle detection from realtime usage
- Lightweight Rust sidecar to manage file handling, unix permission locking, cheat detection, and improved idle detection while utilizing socket communication for instant scale to zero.
- Next.js PWA allowing students to install natively on iPads with local ML+stats based file caches.
- Deployed Red Hat OpenShift to handle hybrid cloud workloads and Kubernetes based provisioning
- Used distributed systems principles to optimize code running and fast load/caching techniques

TECHNICAL SKILLS

Languages: Rust, Python, C/C++, SQL (Postgres), Typescript, HTML/CSS

Frameworks: React.js, Next.js, Flask, WebAssembly, ROS2

Tooling: Git, Docker, Azure, Kubernetes, Cloudflare Workers, Kafka, Ollama, ETL

Libraries: Pandas, SciKit-Learn, Plotly, PyTorch, Matplotlib

Awards: 1st Design HackTAMS 2020 | 1st Google Cloud HackTX 2023 | 2nd Intel HackTX 2024