

Pranav Nutalapati

Software Engineer & Designer



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US Permanent Resident

EXPERIENCE //

McKinsey Digital

Engineer II

Raleigh, NC

MAR 2023 – PRESENT

- **Supply Chain Optimization** React, NestJS, Postgres, AWS
Creating a supply chain planning system to accelerate the monthly process for a large vehicle manufacturer. Optimized client-side calculation logic, creating 5x speedup. Coordinated API contract across development and data teams.
- **Distributed Automated Testing Orchestration** Python, Selenium, OpenCV, RPC
Created bespoke end-to-end test suite, synchronizing state across multiple medical device VMs. Implemented a TCP-based RPC protocol in an orchestrator/worker pattern and computer vision to validate software behavior.
- **Payment Assistance Digital Journey** Angular, AWS Lambda, Sitecore
Created a centralized portal for financially challenged energy customers to find payment assistance programs. Coached client developers to cleaner code through PR reviews and problem-solving sessions. Implemented a custom SVG layout engine for a unique UI element.
- **Field Service Schedule Optimization** React, Express, Postgres, Azure
Created a scheduling optimization solution for field workers at a utility company. Implemented a full-stack dashboard for planners to manually adjust schedules, with consideration for traceability and plan version control.

Brawlhalla Esports, Blue Mammoth Games

Software Developer, Part-Time

Atlanta, GA

OCT 2021 – FEB 2023

- **Odin's Journal** React, Twitch PubSub, AWS S3, AWS Lambda
Designed and built a Twitch Extension to enhance viewership experience by overlaying interactive statistics, tournament bracket updates, and viewer votes. Delivered a concurrent live experience to 30,000 viewers.
- **Website Redesign** Figma, SvelteKit, WordPress, AWS
Redesigned brawlhalla.com, migrating from a Divi-powered WordPress theme to a headless WordPress CMS with a SvelteKit front-end. Deployed site consistently crosses 25,000 pageviews per day.
- **Stream Toolkit (Gjallarhorn)** React, Node.js, WebSockets, AWS EC2
Architected a resilient, multi-user, real-time system to ingest tournament data from several systems (start.gg, internal APIs, game spectator clients) and consolidate it for downstream CG software (CharacterWorks, Aston, vMix). An open-source version with a reduced feature set is available for community use.

PROJECTS //

- **Yarralytics** Next.js, Rust, Tailwind, Azure Service Bus, CF Workers
In-depth performance analytics for Brawlhalla. Website and native Rust client that automatically renders statistics as a post-game overlay. Games are processed by a distributed cluster of worker VMs coordinated through Service Bus.
- **Rubik's Cube RL Agents** Python, TensorFlow, Keras, OpenAI Gym
Machine Learning (CS 4641) end-of-semester project to solve a Rubik's Cube using reinforcement learning. Explored a variety of agents, network architectures, and hyperparameters.
- **Telestrator** Rust, WebRTC, NVENC, NDI, H.264
Freehand illustration tool for sports/esports analysts. A video feed is ingested through NDI, then compressed with NVENC and streamed over WebRTC to an iPad for low-latency telestration.

EDUCATION //

Georgia Institute of Technology

Bachelor of Science in Computer Science; Threads: Intelligence, Media; GPA: 3.94

Atlanta, GA

AUG 2020 – DEC 2022

CERTIFICATIONS & AWARDS //

AWS Certified Solutions Architect - Associate

APR 2024

Intl. Silver Medal in Web Technologies at WorldSkills Kazan

AUG 2019

WRITING //

The Ethics of Computer-Generated Content

DEC 2022

Term paper for my CS ethics course at Georgia Tech. Explores the implications of generative models on ownership and productivity.

Reinforcement Learning Adventures

FEB 2020

Exploration using Deep Q-Networks to play the Chrome Dinosaur Game, Connect 4, and Othello.