Pranav Nutalapati
Software Engineer & Designer

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US Permanent Resident

EXPERIENCE //

McKinsey Digital
Senior Engineer I

Raleigh, NC
MAR 2023 — PRESENT

— **Supply Chain Optimization** — React, Redux, NestJS, Postgres, AWS

Creating a supply chain planning system for a large vehicle manufacturer. Optimized client-side calculation logic, creating 5x speedup. Coordinated API contract across development and data teams. Created a custom datagrid library, enabling intuitive code structure and performance by default. Built PoC for LLM-powered planning assistant.

— **Distributed Automated Testing Orchestration** — Python, Selenium, OpenCV, RPC, Docker

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

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, GraphQL

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 //

— **Spatial WL** — C, Rust, Monado, wlroots, Wayland

A work-in-progress VR desktop environment. Learning GPU programming, window managers, and systems programming.

— **WebRTC Pong** — JavaScript, WebRTC, NodeJS

A peer-to-peer multiplayer pong implementation, featuring rollback netcode. Built as a demo for my presentation on WebRTC at McKinsey.

— **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.

EDUCATION //

Georgia Institute of Technology
Bachelor of Science in Computer Science; Threads: Intelligence, Media; GPA: 3.93

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.