UTSAV CHAUDHARY

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Oh, Hello there! I'm a Fullstack Developer with 4+ years of proven expertise building scalable, end-to-end web applications and AI-driven automation solutions. Skilled in modern frontend frameworks including **React.js**, **Next.js**, and **TypeScript**, alongside robust backend development using **Node.js (Express)** and **Python**. Experienced in integrating AI/ML workflows, including Large Language Models (LLMs) and speech synthesis, to create intelligent, automated content pipelines and data enrichment platforms. Adept at designing secure, performant systems with cloud-native deployment, real-time data processing, and multi-channel automation.

Technologies

Languages: Python, JavaScript, Java, TypeScript, C++, C#, Rust, Bash, PowerShell, R, Go, Ruby, Swift
Frameworks & Libraries: React.js, Next.js, Redux, TailwindCSS, Chakra UI, D3.js, Chart.js, HTML5, CSS3, SCSS, Jinja
Web Technologies: Flask, NodeJS, Django, FastAPI, Express, ASP.NET, Angular, YAML
Databases: SQL, PostgreSQL, Azure SQL, Redis, AWS RDS, MongoDB, DynamoDB, Firebase, Firestore
Cloud & DevOps: Azure, AWS, CI/CD, Kubernetes, Docker, Jenkins, Terraform, Ansible, PowerShell, Yarn, NPM, RBAC
Operating Systems: Windows, Linux (CentOS, Ubuntu), macOS, Embedded Systems, RaspberryPi, Arduino
APIs and Protocols: REST APIs, OpenAPI, Swagger, WebRTC, SOAP, GraphQL, MQTT, WebSocket, OAuth, JSON-RPC
Other Tools: Kafka, Jira, GitHub, Nginx, Azure AKS, Metamask, Cron, WebSockets, OpenAI, Ollama, FFMPEG, Selenium

Experience

Fullstack Developer, Midh Technologies, TX   Jan 2024 – Present

- Spearheaded the design and development of the official company website by translating **Figma designs** into a responsive, production-grade application using **Next.js**, **TailwindCSS**, and **React.js**, improving deployment velocity by **40%**.
- Integrated third-party tools such as **Sumsub** (KYC/AML), **Hubspot** (CRM, ticketing, email automation), and **Stripe** (payment gateway) via SDKs and REST APIs, enhancing user onboarding and transactional efficiency.
- Assisted in architecting a dual-database model using **Firebase** and **MongoDB Node** for seamless connectivity between **Firestore** (real-time auth/state) and **MongoDB** (primary persistence), improving data sync reliability and scalability.
- Designed and implemented an **Admin Portal** as a separate frontend service using **React.js** and **D3.js**, integrating **Firebase Auth**, **RBAC**, and **Firebase Cloud Messaging** for secure, real-time dashboard analytics.
- Developed and deployed secure on-chain identity and asset management using **Fireblocks SDK** and **Metamask**, enabling wallet creation and blockchain interaction within the user profile system.
- Used **Docker** for **Node.js** containerization and orchestrated deployments via **Kubernetes** on **AWS EKS**; hosted frontend on **AWS Amplify** with CI/CD pipelines powered by **BitBucket**, ensuring scalable, automated delivery.
- Collaborated with testers and QA teams using **Jira**, managing issue tracking and resolution during release cycles, achieving a **94% bug resolution rate** within SLA.

Python/Web Developer, Compendious Medialabs Pvt. Ltd., IN   June 2021 - July-2022

- Developed a responsive **React frontend** that consumed live data from the FastAPI backend, creating interactive **charts**, **graphs**, and **metrics dashboards** using **D3.js** and **Chart.js**, improving data visualization efficiency by **45%**.
- Designed and developed an in-house **data scraping application** using **Python**, **Selenium**, **RestAPI**, and **Beautiful Soup**, automating **data extraction** from diverse web sources with dynamic content structures, reducing collection time by **60%**.
- Implemented real-time data synchronization between the React frontend and FastAPI backend, displaying live metrics with **WebSocket connections**, handling **10,000+ data points** with smooth rendering performance.
- Developed a **FastAPI backend** to serve the collected and scraped cleaned data through **JSON REST endpoints**, implementing **Pydantic models** for data validation and achieving **250ms average response time** for data queries.
- Implemented advanced **state management** in React using **Redux** and **Context API**, optimizing data flow and reducing component re-renders by **35%**, while ensuring seamless user experience across **12+ dashboard components**.
- Authored clean, modular frontend/backend code and comprehensive internal documentation on UI logic, API schema, and data workflows—improving onboarding speed and reducing knowledge transfer time by **35%**.

Software Engineer Remote, VRoKCs, MO   March 2020 - Sept 2020

- Collaborated with ML developers to build a comprehensive **Sign Language translation and augmentation system**, contributing to **data collection**, **labeling**, and **dataset preparation** for the machine learning pipeline.
- Developed a **Flask web application** using **Python**, **HTML5**, **CSS3**, and **JavaScript** to showcase the ML team's sign language models, providing an interactive interface for ML developers to test and demonstrate model performance.
- Designed and deployed a **TensorFlow Lite model** integration within the web interface for **efficient, real-time inference**,

optimized for edge devices and browser-based testing.

- Integrated the deployed model with **Unity**, enabling seamless **(ASL) American Sign Language translation** within **Augmented Reality (AR)** environments for real-time user interaction and frontend demonstration.
- Built frontend components for **image upload**, **webcam integration**, and **real-time prediction display** using vanilla **JavaScript** and **HTML5 Canvas**, allowing ML developers to easily test models with live data input.

Web/Game Developer, underDogs Gaming Studios, IN   March 2019 - Aug 2019

- Integrated and optimized the **Quarters API** across multiple games, facilitating seamless universal **gaming currency transactions** as part of a **POC** creating **player wallets**, conducting **secure transactions**, and converting **points to quarters**.
- Tested **API integration**, improving **real-time data sync** & **communication** between **clients** & **servers** using **Python** and **C#**.
- Developed POC for multiple **third-party APIs** including **payment gateways** (Stripe, PayPal), **shipping APIs**, and **inventory management systems** with backend services.
- Assisted in implementing **secure transaction methods** integrating with **Unity3D**, exp in **API best practices** & **bug fixing**.

Projects

LinkedIn Reverse Search Platform   Client Project

- Built a **data enrichment platform** using **Python**, **Selenium**, and fine-tuned **Hugging Face models** to extract LinkedIn profiles and verified emails, processing **1000+ records per batch**.
- Developed a **Next.js frontend** with drag-and-drop Excel upload, real-time progress indicators, and interactive data tables.
- Architected a **multi-threaded processing pipeline** integrating scraping, SalesQL APIs, **Redis caching**, and **MongoDB**, reducing repeat request time by **45%** and enabling detailed analytics dashboards with **React.js**, **Chart.js**, and **D3.js**.
- Implemented secure **Firebase Auth** and **Firestore** for user management, deploying with **Docker** and automated CI/CD pipelines to maintain **99.5% uptime** during heavy usage.

AI-Powered Video Generation Pipeline   Personal Project   **Instagram:** `instagram/thatvocabguy/`

- Developed an advanced **AI-powered video generation pipeline** using **Python** and **machine learning models**, integrating **F5-TTS** for high-quality voice cloning and speech synthesis to create fully AI-generated videos.
- Integrated **OpenAI API** for dynamic script writing, **WhisperAI** for audio transcription, and **FFMPEG** for embedding subtitles and synchronizing audio-visual elements. **Chrome** and **Selenium** for managing and automating the browser.
- Engineered a scalable video processing system that merges AI-generated audio with trending gaming backgrounds, applying randomization for unique video variants using **FFMPEG** and custom overlays.
- Designed and deployed a multi-channel automation system with **Docker** and **CRON jobs** for scheduled generation and publishing of **50+ videos daily** across **YouTube** and **Instagram**, including platform-specific metadata and formatting.
- Built an intuitive **Gradio interface** for real-time pipeline monitoring, voice cloning status updates, and batch processing, enabling efficient management of large-scale video production.

Education

State University of New York at Binghamton   Aug 2022 – Dec 2023
Master of Science in Computer Science   3.44/4.00 GPA