Nikhil Deo

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Innovative, inquisitive and charismatic engineer with a flair for leadership and a compelling understanding of data structures, algorithms, artificial intelligence and teamwork dynamics. Searching for an environment with like-minded individuals to further enhance skill sets in communication, innovation, and development.

TECHNICAL SKILLS

Languages	HTML, CSS, JavaScript, Python, Java, C, C++, Golang, SQL, SAS, Solidity, Excel VBA, MATLAB
Frameworks	Next.js, Vue.js, Nuxt.js, Django REST, Vite, Hadoop
Libraries	React.js, HuggingFace, Scikit-learn, Pandas, Numpy, Tensorflow, Pytorch, Bootstrap, Material UI, Vuetify, Recoil, GSAP, Threejs
Software	SAS 9.4/3.5/Viya, KNIME, Git, Jira, Adobe Suite
Databases	Firebase Realtime Db, PostgreSQL
Environments	Node.js, SAS (runtime), Docker, Visual Studio Code, Vim
Systems	Unix/Linux, Windows10/11, MacOS, BIOS, Kubernetes
Infrastructure	On-premises, AWS, Azure

EXPERIENCE

Senior Associate Technical Support Engineer **Feb 2022 – Present**

SAS Institute, Lanecove, NSW **Full-time**

- Troubleshooting, debugging and root cause analysis for applications based on monolithic and microservices architecture using proven problem-solving methodologies.
- Achieving outstanding customer satisfaction by employing effective prioritization, communication, business-impact analysis and teamwork.
- Continuously upskilling and sharing knowledge in alignment with company goals.
- Becoming the voice of the customer to build user stories and improve the product.
- Handling Follow-The-Sun issues to provide support past local business hours.
- Reading and writing SAS, Python, Java, Golang, C and BASH code for debugging and automation.

Software Engineer **May 2024 – Present**

Squidly, Sydney, NSW **Contract**

- HR approved side-project worked on the weekends outside of SAS business hours.
- Designing and improving an eye-gaze tracking system for people of disabilities.
- Creating pipelines in Python to streamline R&D of Machine and Deep Learning models.

PROJECTS

Eye-Gaze Tracking System **May 2024 – Present**

- Doubled eye tracking accuracy from 3x3 to 6x6 by improving the models input features.
- Implemented a second model which utilized 3D spatial coordinates for maintaining calibration with head movement.

Survey Robot LLM **March 2023 – Nov 2023**

- Created a pipeline in Python to translate unstructured, English utterances into Linear-time Temporal Logic (LTL) using SOTA LLM's from the HuggingFace API.
- Addressed issues with Out-Of-Vocabulary (OOV) words using subword-tokenization
- Designed a data generation methodology to evaluate contextual and OOV performance.
- Achieved over 90% translation accuracy for certain models.

DeepERV **April 2023 – June 2023**

- Created an object detection network in Python that used Convolutional Neural Networks to identify active Emergency Response Vehicles and pin their location to a shared map.
- Designed and implemented an algorithm to determine the direction of a moving vehicle using object detection, which synchronized with an alert system.
- Reduced server costs by integrating TensorflowJS models with React to run on client.

AutoCal **Aug 2022 – Oct 2022**

- Team Lead and fullstack developer of a Vue.js smart calendar application that used a KNN model to plan weekly schedules based on historical data.
- Created a generalized model to address challenging 'cold start' problems.
- Integrated Python ML libraries running high performance ASGI servers with Nuxt.js.

ProctorUTS **Aug 2021 – Oct 2021**

- Fullstack developer of online proctoring React application that used video conferencing and Artificial Intelligence to allow students to sit exams at home.
- Managed GitHub repository for team of seventeen, resulting in minimal merge conflicts.
- Developed multi-peer-to-peer video conferencing functionality in Next.js using WebRTC and Firebase Webpack 9 to provide a low-cost high-performance solution with extremely low latency, high-level encryption, and serverless conferencing.

CORE SKILLS

- **Teamwork** – Worked vertically and horizontally across the organization to deliver appropriate solutions for customers, resulting in additional revenue and trust.
- **Initiative** – Upskilled in areas of improvement for ANZ Technical Support to expand the scope of local resources, resulting in faster turnaround times.
- **Problem Solving** – Trained in the Kepner-Tregoe problem-solving methodology to confidently approach any problem, no matter how complex.
- **Communication** – Continuously exceeded KPIs by applying listening, oral and written skills to understand user requirements and communicate the best solution.

EDUCATION

Bachelor of Software Engineering (Honours) **2019 – 2024**

University of Technology Sydney

- Sub-majored in Data Analytics
- Exposure to Agile methodologies and Backend/Frontend technologies
- First Class Honours - final WAM of 86.08

REFEREES

Available upon request