Sounish Nath

✉ flock.sinasini@gmail.com | 📱 +918017204855
 github.com/sounishnath003 | in linkedin.com/in/sounishnath

Skills

Languages: C/C++, Java, Python, JavaScript, TypeScript, SQL, Golang

Technologies & Tools: GCP, BigQuery, GCS, Pubsub, Dataproc, Elasticsearch, Spark, Kubernetes, Docker, Kafka, NestJS, NodeJS, FastAPI, Django, Apache Airflow, Angular, PyTorch, Kubeflow, Generative AI (LLMs)

Work Experience

Tata Consultancy Services, Mumbai   Aug 2021 - Present

Software Engineer, Cloud Data & AI

- Engineered highly performant GraphQL API achieving 60% improved service-empowered downstream/upstream apps for data-as-services offerings
- Led the migration of SQL SSRS, Hive, and Presto jobs to Google Dataproc, enhancing availability and significantly improving operational costs.
- Pioneered in developing huge deep neural network models capable of solving HelpDesk domain problems, resulting in 80 person month of effort saving, 42% productivity improvements, 85% enhanced UX, and 20% TAT improvements observed.
- Architectured a self-managed serverless data platform in building a data fabric ecosystem with sustainable data governance and quality at the core
- Led the team in developing 6 Generative AI prototype service agents demonstrating re-imagined IT operational workloads powered by LLMs.
- Developed accelerated data pipelines (ADP) with Predictive Modeling framework handles 2.2+ billion data events at scale for global IT monitoring operations helping 52% early capacity planning and 36% pre-cost saving in 1.2 hours
- Led a cost-saving initiative by identifying unused GCP resources and establishing GCP bucket expiration policies, leading to an annual cost reduction exceeding INR 20,00,000 in GCP expenditures.
- Built a visualization tool to group contextually related infrastructure alerts (issues) to reduce the Mean Time to Resolution (MTTR). Modeled the infrastructure dependencies as a graph problem and used graph algorithms like BFS, to show the visualization and identify the root cause for a bunch of alerts.
- GCP, PyTorch, Vertex AI, Dataproc, BigQuery, Docker, Pubsub, Airflow, Terraform, NestJS, CloudRun, Cloud Functions, Cloud Workflows, GCS, Apache Beam, Cloud Dataflow

Tata Consultancy Services, Mumbai   Feb 2021 - Jun 2021

Systems Engineer - Intern

- Worked on migrating ML workflows to Google Vertex AI, enabling continuous learning, automated scalability based on workload demands and improving the metrics and model tracking capabilities.
- Contributed to tech design documentation for internal web app migration from AngularJS to Angular 13.
- Designed and Developed online seat reservation functionality in Angular TypeScript.
- Developed an IT Asset Scanner Tool using Golang, scanning 60/80 reachable hosts per minute within a subnet. This represents a 70% improvement in speed compared to previous PowerShell scripts.
- Used Decorator Design Pattern in Online Seat Booking Functionalities for addition features increasing the user attraction to 20% with product features
- Learnt and implemented Angular Routing Lazy Loading module chunking feature which optimizes and improved first contentful paint (FCP) up to 28%
- Golang, TypeScript, NodeJS, Angular, MongoDB, GCE, scikit-learn, LightGBM, XGBoost, TensorFlow

Ercess Live, Bangalore   May 2020 - Jun 2020

Frontend Developer - Intern

- Enhanced product insights by implementing interactive search with customizations filters and KPI monitoring in dashboards, driving better user engagements.
- Integrated Stripe payment SDK for seamless in-app purchases in Angular web app.
- Developed an email marketing newsletter UI in Angular product admin dashboard.
- Python, TypeScript, Django, Angular, d3, MongoDB, Stripe SDK

Education

Brainware Group of Institutions - SDET, Kolkata · Aug 2017 - Jun 2021
B.Tech in Computer Science and Engineering · *DGPA: 9.27/10*
Relevant Coursework: Object Oriented Programming, Databases, Discrete Maths, Data Structures and Algorithms, Operating Systems, Computer Networks, Machine Learning, Data Mining, Advance Data Structures and Algorithms, NLP, Text processing, Web development

Project Work

- **450 DSA Tracker (2020):** Built a personalized DSA preparation tool with similar features likewise Leetcode. Over 4000+ users have been used, with approx 1500 monthly active users. Built with Angular, RxJS, MongoDB, Docker, and Monaco editor. (**YouTube GitHub Live Demo**)
- **Manifold - One place Generative AI Service SaaS (2023):** - A single platform for managing Generative AI LLMs services, including Google Generative AI, text-bison, chat-bison, diffusers, hugging face, Angular, and TailwindCSS. (GitHub)
- **Intentful Chatbot with DeepNeural Nets (2023):** Developed a custom NLTK and transformer-based deep neural network. Trained on a large dataset on Kaggle. Built with PyTorch, huggingface, transformers, NLTK, Matrix Multiplication, Faiss etc. (**YouTube GitHub**)
- **Educatify - Virtual Classroom Solution (2020):** Build a full-stack project during COVID-WAR Education that has Google Classroom features with CMS Dashboard, Zoom Video conferencing service integration, conduct a mock exam test feature. Won 2nd Prize in the competition. Built with Angular, NestJS, googleapis, MongoDB, GoogleAuth, Docker (**YouTube GitHub**)
- **Tweak - Personalized Week planner (2021):** Minimalist clone of Tweek.so with necessary free features in an old-school manner helping the user to plan their weekly action items easily. Built with Angular, TypeScript, MongoDB, DragDrop, and RxJS. (**YouTube GitHub**)
- **Network Assets Scanner - ITAM Agent (2020):** This is a library for Go that is simple, lightweight, and easily extensible. It supports LAN networks, subnet IP pools, IP CIDR ranges, RPC sync signals, and online devices. It has been optimized for runtime on assets with a minimum of 150 SAM and exposes a REST API endpoint for query dump. The library has been built using Golang, HTTP, CIDR, Goroutines, and other related technologies. (**GitHub**)
- **FoodKa - Online Food Ordering Service (2019):** The project was built as a "Zomato" clone. Implemented features like onboard restaurant, food search nearby dining, and cart checkout functionality. Built with Angular, Material, Zomato Json API, BeatifulSoup, Python, and Flask. (**YouTube GitHub Live Demo**)

Awards and Certificates

- **TCS Contextual Master Award:** Received TCS one of the most prestigious awards and appreciation in just 1.5 years of service by contributing high-value projects making revenue and saving efforts of associates.
- **Top 10 Coders Team Appreciation:** Contribution to TCS Internal TechVantage program and participation to hackathon solving real tech challenges in industries
- **TCS Codevita 2020-2021:** Secured PPO offers from TCS. All India rank 2271
- **Machine Learning and Deep Learning Engineer:** Certification has been done from Edureka
- **Google Professional Data Engineer:** Certification in Google Cloud Platform build serverless data engineering solutions