Vinidu Wickramasinghe

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WORK & PROJECT EXPERIENCE

SOMA Finance   **Sheung Wan, Hong Kong**
Backend Engineer   Apr 2022 – present

As the primary backend engineer at SOMA Finance, I undertake the pivotal responsibility of architecting and building backend microservices to strengthen the trading platform's robustness. My role entails collaborative discussions with the Head of Tech to shape the server-side architecture. Furthermore, I allocate my efforts to contribute to the frontend infrastructure, aligning with available bandwidth.

o   Trading platform
     Backend
- Orchestrated the backend architecture utilizing the serverless framework with NodeJS and AWS, including Lambda, DynamoDB, API Gateway, Systems Manager, OpenSearch, Queues. This framework facilitates seamless REST endpoint generation, harmonizing the frontend-to-backend interaction.
- Leveraged an array of third-party libraries, including Auth0, Hubspot, Sentry, TaxBit, and MailTrap to increase the depth of the platform functionality.

     Frontend
- Crafted a dynamic user experience with the NextJS framework, with SSR and ISR. This framework is reinforced with React Query, which enhanced state management and real-time query capabilities.
- By using Chakra UI as the component library of choice, we created user interfaces that elegantly solve the complex design challenges of real-world applications.

o   Soma website V3
- Implemented the development of the Soma official website, with the NextJS framework integrated with a Drupal Content Management System. This coupling enabled seamless integration of content from the marketing team, with no developer guidance necessary.
- Utilized the Tailwind styling library, tailoring design aesthetics to modern design principles.

Neoma Ltd   **Science Park, Hong Kong**
Full Stack / IoT Engineer   Oct 2019 – Mar 2022

Functioning as the sole technical engineer within Neoma Ltd in HK, I orchestrated the full-stack development, hosting, and maintenance of both corporate websites and the company's proprietary platform. I was also responsible for the management of the Internet of Things (IoT) infrastructure, consolidating the company's technological expertise under a unified strategic vision. I functioned in direct collaboration with the CTO, utilizing a cohesive approach to project management that spanned the entire development lifecycle.

o   Neoma official websites
- Spearheaded the end-to-end development lifecycle of Neoma's official websites, neoma.ai and gaiahospitality.com. This included domain registration through Route53, hosting via AWS S3, and edge deployment optimization with AWS CloudFront distributions.

o   Neoma platform
- Enhanced the transition of the Neoma platform into an agile Software-as-a-Service (SaaS) dashboard. A key achievement has been the integration of the payment process, notably the addition of Stripe for automated payment processing and customer interaction.
- Configured a robust technical backend ecosystem, leveraging Java Spring Boot framework and AWS (Lambda, DynamoDB, API Gateway, S3, Redshift, and Kinesis Firehose).

- o IoT
    - ▪ Navigated challenging IoT terrain by designing and deploying RFID devices for various industries. This includes provisioning and network load balancing on AWS with auto-scaling, which will provide a flexible and highly available ecosystem.
    - ▪ Configured Amazon Kinesis Firehose to orchestrate the collection, processing, and storage of IoT device-generated data within Amazon Redshift. The IoT devices were configured for asset-tracking, sending insights to the server every 5 minutes. This raw data inside Redshift was analyzed every hour using AWS Lambda with a scheduler, saving the processed data in DynamoDB for client-side use.

- o Projects
    - ▪ Pioneered the development of an indoor guest tracking solution for Wheelock, a real estate conglomerate. This project utilized AWS IoT Core, REST endpoints, and microservices to deliver real-time path tracing and analytics.
    - ▪ Under the banner of the [SafeGo](#) initiative, I played a pivotal role in managing a team of engineers to devise a seamless airport experience. The implementation involved end-to-end backend orchestration, API design, and a React-based CMS dashboard.
    - ▪ Supervised the development of Connected Shopper, a platform to connect brands with shoppers before they travel. Managed a team of 3 developers while creating the API endpoints and back-end microservices, along with the infrastructure. Integrated Google and Apple wallets to the app to create wallet passes per campaign for each user.

HSBC   **Olympic, Hong Kong**
Online Banking Systems (OBS) Infrastructure Developer   Aug 2017 – Jul 2018
- o At HSBC I was tasked with the complex task of maintaining and optimizing core mainframe data processors powering the Online Banking Systems (OBS) These mandates included careful monitoring of daily operations, anomaly detection, memory optimization, automation of critical application development processes. In addition, I was involved in enhancing user experience system efficiency.
    - ▪ Engineered a critical batch program that received seamless updates to the existing database structure. Leveraging SQL, COBOL, and JCL, configuration for the execution of this program was modified within the mainframe environment.
    - ▪ Improved the performance and functionality of a longstanding C++ program that interfaced with the online banking systems. This process involved updating the source code to align with current requirements, enabling the generation of credential files.
    - ▪ Carefully troubleshooted and optimized the HSBC OBS website, using Java and the IBM Rational Software Architect to rectify minor software discrepancies.

EDUCATION

AWS
AWS Certified Cloud Practitioner (CLF)   Apr 2023

The University of Hong Kong   **Pokfulam, Hong Kong**
BEng (Hons) Electronic Engineering   2014 – 2017, 2018 – 2019

Coursera - Deep Learning Specialization   Feb 2019
- ● Neural Networks and Deep Learning
- ● Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization
- ● Structuring Machine Learning Projects
- ● Convolution Neural Networks
- ● Sequence Models

SKILLS

TypeScript | AWS | NodeJS | Serverless | MySQL | MongoDB | PostgreSQL |Elasticsearch | Auth0 | ReactJS | NextJS | Chakra UI | Tailwind | Solidity | EthersJS | The Graph | WordPress | Git | GitHub | C / C++ | Python | Java