

## EDUCATION

### National University of Singapore

B.Eng Computer Engineering (E-Scholars Programme) - 4.9 GPA

## EXPERIENCE

### Founding Software Engineer @ *Check (Iterative W25)*

Feb. 2025 - Present

Check revolutionizes student learning through AI-driven active recall, syllabus accurate, and smart analytics

- Engineered and launched over 5 novel features, driving a 40% surge in user retention and engagement
- Spearheaded migration of Next.js webapp to AWS, reducing costs by 30% and improving performance by 20%

### Software Engineering Intern @ *London Stock Exchange Group (LSEG)*

Jun. 2024 – Dec. 2024

LSEG Labs addresses challenges in financial markets by assessing climate risks and simplifying ESG disclosure

- Utilized Infrastructure as Code (IaC) with Terraform to provision micro-services for a data ingestion pipeline, reducing provisioning times by 90% and maintaining idempotency across multiple development and test environments
- Designed and deployed infrastructure using AWS SNS for efficient Pub/Sub data-sharing between micro-services
- Led development of replay feature with Athena for event-driven architecture, accelerating disaster recovery by 80%
- Implemented CRUD module for managing granular data access permissions within a NoSQL database environment
- Set up key overloading in DynamoDB to decrease reliance on GSI for complex queries, cutting down costs by 60%
- Created test pipelines for cloud services, decreasing failed deployments by 10% and minimizing deployment errors
- Explored WASM SQLite with NoSQL backend, enabling complex analytics and cutting down backend calls by 40%

### Software Engineering Intern @ *NodeFlair - Tech Career Platform for SEA*

Jan. 2024 – Jun. 2024

NodeFlair connects tech talents with job opportunities, optimizing the recruitment process for millions in SEA

- Enhanced and optimized the existing Ruby on Rails API to support large-scale, high-availability services and boost site performance and scalability for over 400,000 monthly users
- Maintained and upgraded functionalities of a Plasmio browser extension, facilitating smoother access to AI tools
- Leveraged parallel integration and e2e testing to achieve a 50% reduction in Continuous Integration (CI) test time
- Set up Docker images for development to mimic production environment, reducing on-boarding time by over 80%
- Utilized A/B tests on key landing pages for data-driven changes, boosting click-through rates by 18%
- Deployed programmatic SEO to automate creation of SEO-optimised pages, increasing organic traffic by 60%

### Software Engineering / ML Intern @ *Home Team S&T Agency (HTX)*

Nov. 2023 – Jan. 2024

xData builds data and AI products that enhances the Home Team's capabilities in internal and mission-based operations

- Employed BeautifulSoup for web scraping, with data cleaning and transformation using Pandas and NumPy
- Utilised GenAI for the construction of knowledge graphs from over 40,000 pages of unstructured legal documents
- Implemented multi-agent LLMs for question answering (QA), for a 15% increase in accuracy in data-analysis tasks
- Integrated knowledge graphs and vector databases to enhance multi-hop QA performance during retrieval-augmented generation (RAG), resulting in a 30% increase in evaluation scores and improved context precision
- Initiated frontend redesign of Vertext, an in-house NLP tool serving 10+ agencies, upping feedback scores by 40%

## PROJECTS / EXTRACURRICULARS

### Insecure File Service | Simple file sharing service for public use - ifs.kenf.dev

Sep. 2024 - Present

- Developed a serverless file sharing service using AWS Lambda, CloudFront, and S3, managed with Terraform
- Adopted by over 50 users for sending files to public printers, eliminating the need for sign-ins on public machines

### Linux Homelab | Repurposed laptop running Ubuntu Server for personal use

Feb. 2024 - Present

- Exposed to the internet via Cloudflare Tunnels and secured with Cloudflare Zero Trust for remote SSH access
- Utilised as a cloud compute platform to self-host backend services and GitHub runners - primarily used as a NAS
- Set up cron jobs to automate backups on AWS S3 Glacier for cost-efficient redundancy without reliance on RAID

## AWARDS

**NUS Hack&Roll '25 - Top 8 | NUS-ISE Micron BACC '24 - 2nd Runner-up | Ground Zero '24 - Top 10**

**SCS Splash Awards '23 - 1st | SUTD WhatTheHack '23 - 1st | HTX HacX! '23 - 3rd | CloudHacks '23 - 1st**

## TECHNICAL SKILLS

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**Languages:** JavaScript, Python, Ruby, Java, C, C++, SQL, PostgreSQL, HTML/CSS

**Frameworks:** Next.js, React, React Native, Node.js, Spring Boot, Flask, Django, Ruby on Rails, Plasm

**Developer Tools:** Git, Docker, AWS, Microsoft Azure, Google Cloud Platform, Firebase, Supabase, Neo4j

**Libraries:** NumPy, pandas, Matplotlib, TensorFlow, PyTorch, LangChain, ThreeJS