JAVIAN NG

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EDUCATION

National University of Singapore   **Aug 2022 - Jul 2026**
Bachelor of Science in Business Analytics
- NUS Computing Club 26th Main Committee, President
- NUS Overseas College, Vietnam, Ho Chi Minh City, 3 Months
- NUS Overseas College, Paris, France, 6 Months
- Awarded the NUS Student Union Council Merit Award

SKILLS SUMMARY

- Programming Languages: Python, JavaScript, Java, SQL, TypeScript, Shell Command Language
- Languages: Fluent in English and Mandarin (Both spoken and written)
- Tools and Frameworks: Scikit-learn, TensorFlow, SQL, NoSQL, BigQuery, Git, ReactJS, Node.js, AWS CDK, AWS
- MOOCs Certifications: Google Cloud Professional Machine Learning Engineer Certification, Dynamic Public Speaking, Google Data Analytics Specialization, Introduction to JavaScript, Literacy in AI, Prompt Engineering for ChatGPT, Platform Thinking: What's beyond Uber?
- UEH BizTech Hackathon 2023 - Third Placing

INTERNSHIP & WORK EXPERIENCE

Parametriks, Machine Learning and Software Engineer Intern   **Aug 2024 - Jan 2025**
- Rebuilt the MVP within 6 months, optimizing performance, implementing core features, and laying a scalable foundation, contributing directly to company's exit
- Designed and deployed scalable AWS infrastructure using AWS CDK, including VPC, Aurora Serverless RDS, Lambda, API Gateway, Glue, S3, and Athena, enabling rapid development and seamless future team expansion
- Integrated advanced AI capabilities, developing a text-to-SQL workflow powered by AWS Bedrock, achieving 80% accuracy in natural language query conversion and enabling actionable insights from multiple datasets and document client possess
- Built automated AI/ML data pipelines leveraging Glue Crawlers, Athena, and SageMaker for real-time data ingestion, analysis, and prediction, reducing operational overhead by 70% and enhancing system efficiency
- Constructed user-friendly dashboards and interfaces with dynamic data visualizations, improving usability and engagement
- Developed and tested secure, scalable RESTful APIs using AWS API Gateway, integrating with AWS Lambda and DynamoDB to enable robust serverless architectures
- Designed and deployed PostgreSQL and NoSQL database for scalability and data integrity, ensuring adaptability in handling complex data of multiple insurer and client
- Authored comprehensive technical documentation covering infrastructure, workflows, and architecture, reducing onboarding time for new developers by 50% and facilitating cross-team collaboration

Singapore Immunology Network (SIgN), Bioinformatics Research Intern   **May 2024 - Aug 2024**
- Analysed large-scale genomic datasets with over 7 million rows, producing insights, shifting research directions
- Integrated more than 11 open-source bioinformatics tools into a custom automated pipeline to streamline analysis
- Developed a Shell and Python automation to extract and group cell barcodes, segment TCR α and β chains per cell, and reconstruct TCR chains using de novo assembly.
- Increased barcode recovery from 608,700 to 2,181,878, advancing cell barcode extraction
- Innovated a novel Python-based method to separate TCR α and β chains without need for a whitelist, achieving an average accuracy of 90% on sequences from 100 unique cell barcodes using a clustering algorithm based on Ward's linkage, demonstrating effectiveness in clonotype identification for long-read sequencing applications
- Served as third co-author on Refining TCR Clonotype Identification With Long-Read Sequencing Technique, submitted to the Society for Immunotherapy of Cancer (SITC), supporting cancer vaccine development

LFG, Software Developer Intern   **May 2023 - Aug 2023**
- Collaborated with 4 development team members to design and implement website and product features
- Wrote over 5,000 lines of clean, efficient, and maintainable code to develop MVP

- Collaborated with 3 designers to ensure user interface is responsive and user-friendly, aligning design and development team

Republic Singapore Air Force, National Service   **Jan 2020 - Apr 2022**
- Performed in National Day Parade 2021 and SAF Day 2021 as Guards of Honours
- Awarded "Best Airman of the Month" in August 2021 for going beyond duties
- Founded the NSF Council, impacting over 20 NSFs in 3 departments, by arranging 3 welfare events across 4 months

EXTRA-CURRICULA EXPERIENCE

ASEAN Business Youth Organization, Lead Website Developer   **Jun 2023 - Oct 2024**
- Directed a team of 3 website developers, 2 UI/UX designers and 2 copywriters from 3 different ASEAN countries in building a new full-stack website application
- Conduct code revisions and optimisation on a bi-weekly basis
- Wrote over 39,998 lines of code to implement user authentication and key features

NUS Computing Club, President   **Sep 2023 - Sep 2024**
- Led a team of 30 in organising over 20 club events relating to student life and development, impacting 5,000 undergraduates
- Allocated and managed club's finance of up to $300,000 to 4 departments organising over 20 events

COMMUNITY INVOLVEMENT

ACJC Overseas Community Involvement Program (Chiangmai), Vice President   **Jul 2018 - Nov 2018**
- Showcased leadership and managerial skills by orchestrating a team of 5 in planning and execution of educational and fun activities for less privileged, and directing and allocating tasks to a group of 30 team members
- Demonstrate adaptability by working around logistical shortages to cater to more than 120 children