

NIKOLAS KURNIAWAN

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Work Authorization: Eligible for H-1B1 Visa (Singapore Citizen)

PROFESSIONAL EXPERIENCE

Senior Data Engineer – GIC Jan 2023 – Present
Sovereign Wealth Fund of the Government of Singapore Singapore

- Architected and deployed a Bloomberg B-PIPE data ingestion pipeline on AWS EC2 instances to stream real-time instrument market data for trading analytics, which is projected to deliver over US\$10 million in annual DVA.
- Developed and maintained a centralized, configuration-driven data ingestion application, leveraging AWS SQS for distributed workload orchestration and AWS S3 for raw-file archival, significantly reducing development effort.
- Spearheading the creation of an internal open-source Python library to standardize data ingestion patterns across the organization and enable decentralized pipeline deployments on AWS Lambda, AWS EKS, or AWS Glue.

Software Engineer – Bank of Singapore Mar 2019 – Jan 2023
Private banking arm of OCBC Bank, US\$116 billion of Assets Under Management Singapore

- Developed a foundation microservice to retrieve instruments static data from B-PIPE for multiple asset classes across different exchanges, currently used by Exchange Traded Options (ETO) trading platform.
- Integrated Bloomberg EMSX with the ETO trading platform through IBM MQ for order execution, eliminating the manual booking process by front office and enabling clients trading capabilities.
- Collaborated in a team of 4 to develop scalable and reusable domain microservices for the Equities trading platform, reducing the trading operations man-hour by automating straight-through processing orders, which account for about 80% of the total trading volume.
- Migrated the Private Equity Funds trading platform from legacy systems to Spring Boot and React applications, improving the code maintainability and reduce the monthly average number of raised defects by 75-80%.

Data Engineer – EdgeProp Singapore (EdgeProp.sg) Jul 2017 – Mar 2019
Singapore property portal and analytics platform, a subsidiary of The Edge Media Group Singapore

- Spearheaded the development and implementation of a property valuation algorithm for commercial and industrial properties as well as conducted the system performance analysis using Python.
- Developed multiple data integration module to improve the quality of real-estate projects information through geospatial open APIs as well as company proprietary data sources.
- Maintained a data pipeline developed in Drupal environment which assists the property agents in migrating their property listings from another property portal into the system.
- Managed ETL job scripts development to gather property transactions data and property agents' information written in Python and PHP.

EDUCATION

Georgia Institute of Technology Aug 2023 – Dec 2025
Master of Science in Computer Science (Machine Learning Specialization) Atlanta, GA, United States

Nanyang Technological University (NTU) Aug 2013 – Jun 2017
Bachelor of Engineering (Honours) in Electrical and Electronic Engineering Singapore

TECHNICAL SKILLS

Programming Language Python, Java, JavaScript, PHP	Back End Application Framework Spring Boot, Express.js, Drupal	Front End Application Framework React, Bootstrap, Semantic UI
Database Management System MSSQL, PostgreSQL, Snowflake	Middleware Framework Kafka, Redis, IBM MQ, AWS SQS	DevSecOps and Infrastructure GitHub Actions, Jenkins, Kubernetes
Testing Framework JUnit/Mockito, Cucumber, Jest	Code Quality Tools SonarQube, Black Duck, Coverity	Data Visualization Tools Tableau, QlikView

CERTIFICATIONS AND QUALIFICATIONS

Solution Architect – Associate Amazon Web Services Aug 2023	Computer Communications University of Colorado (Coursera) Apr 2021	DevOps Engineering & Automation National University of Singapore Jul 2020
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RELEVANT SKILLS AND COMPETENCIES

Language English (Advanced), Bahasa Indonesia (Native)	Software Application Microsoft Office (Word, PowerPoint, Excel)	Graphic Design Adobe Creative Cloud (Photoshop, Lightroom, Premiere Pro)
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