

Nicholas WAN

DATA SCIENCE & CYBERSECURITY



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Experience

Defence Science and Technology Agency

Singapore

CLOUD ANALYTICS LEAD

Jan 2021 – Present · 4 yr 5 mos

- Lead a team in designing and implementing cloud-based analytics solutions for AWS and Microsoft 365 environments. Focused on identifying and addressing gaps in commercial off-the-shelf tools by developing custom dashboards, automated reporting pipelines and real-time monitoring solutions to enhance security.

CYBER DEFENCE ANALYST

- Represented Singapore as part of the Data Analytics team in NATO CCDCOE's Locked Shields 2024, the world's largest and most advanced international live-fire cyber defence exercise, achieving 5th overall out of 40+ participating teams. Focused on detecting cyber anomalies through data analytics to support rapid threat identification and response.

CYBER AI ENGINEER

- Designed and implemented a comprehensive phishing detection solution combining URL analysis, logo recognition, and website screenshot comparison. This system achieved a validation F1 score of 0.83 on the PhishTank dataset and included an automated workflow that generates and emails PDF alert reports to stakeholders, enabling proactive threat identification.

Shopee

Singapore

DATA SCIENCE INTERN

Apr 2020 – Nov 2020 · 8 mos

- Trained NLP models to perform multiclass classification on product titles and descriptions to predict product attributes.
- Implemented NLP in multiple languages including English, Chinese, Thai, Indonesian and Vietnamese.

The League

San Francisco

DATA SCIENCE INTERN

Aug 2019 – Apr 2020 · 9 mos

- Created and productionized a Machine Learning model to predict catfishers and bad users leading to the customer support team saving 30% of time reviewing profiles and improving the trust and safety in the community.
- Set up an alert system for over 20 key company metrics such as Revenue, DAUs, Churn, using Periscope / Sisense to notify stakeholders through Slack.
- Conducted AB Testing experiments with statistical significance tests to inform and influence product decisions, which included product features.

Education

National University of Singapore

Singapore

BS.C BUSINESS ANALYTICS (HONS), HIGHEST DISTINCTION

Aug. 2017 – Dec 2020 · 3.5 yrs

- NUS Merit Scholarship
- Cumulative Average Point: 4.66/ 5.00
- NUS Overseas Colleges (Silicon Valley NCSV36)

Stanford University

Stanford

NON-GRADUATING OPTION

Aug. 2019 – Apr 2020 · 9 mos

- Mining Massive Datasets – Grade Obtained: A
Topics Include: Frequent itemsets and Association rules, Near Neighbor Search in High Dimensional Data, Locality Sensitive Hashing (LSH), Dimensionality reduction, Recommendation Systems, Clustering, Link Analysis, Large-scale Supervised Machine Learning, Data streams, Mining the Web for Structured Data, Web Advertising.

Skills

Programming Python · R · Java · HTML/CSS · JavaScript · Spark

Database SQL

Visualization Tableau · Sisense

Security Monitoring Splunk

Certifications

AWS Cloud

Solutions Architect Associate · Data Analytics Specialty · Machine Learning Specialty

Container Security

Certified Container Security Expert (Practical DevSecOps)