

NICHOLAS KO

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EDUCATION

YALE-NUS COLLEGE

Bachelor of Science, Data Science Major

Singapore
2020 - Present

- Relevant Coursework: Probability, Linear Algebra, Programming for Data Science, Introduction to Data Science, Introduction to Computer Science.
- Proficient in R, Python and QGIS.
- Recipient of FM (Factory Mutual) Global Scholarship.

HWA CHONG INTERNATIONAL SCHOOL

International Baccalaureate Diploma (40/45 Points)
EE/TOK (A/B)

Singapore
2016 - 2017

EXPERIENCE

YALE-NUS COLLEGE

Research Assistant (Environmental Studies)

Singapore
May 2021 - July 2021

- Performed exploratory data analysis on mangrove forest dataset of 5000+ plants.
- Analysed bootstrapped data to understand factors for forest regeneration.
- Created 3 heatmaps to compare difference between observed mangrove population and bootstrapped population.
- Constructed visualisations with R packages: 'ggplot2', 'dplyr', 'vegan'.

PROJECTS

Migrant Worker Bus Travel Data

- Analysed 15 million data points of origin-destination bus travel data.
- Created maps of travel and amenities around migrant worker dorms in Woodlands in QGIS.

Covid-19 Policy Comparison

- Used dynamic time warping to cluster 229 countries into 8 clusters based on Covid fatality metric.
- Visualised the policies between Indonesia and United Kingdom to find that their Covid policies were similar.

Stroke Prediction Model

- Applied SMOTE to balance and imbalanced dataset comprising of stroke/non-stroke patients.
- Applied K-nearest neighbor model that correctly identified 100% of stroke cases, 96% of non-stroke cases.

ADDITIONAL INFORMATION

- Languages: English (native), Cantonese (conversational), Singapore Sign Language (beginner)
- Technical Skills: Python, R, QGIS, HTML, OCaml.