

# Koa Zhao Yuan

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## EDUCATION

### Yale-NUS College

Aug 2019 – Present

*Bachelor of Science in Mathematical, Computational and Statistical Sciences*

*GPA: 4.88 / 5*

- Recipient of the full-ride, bond-free Yale-NUS Global Leader Scholarship only awarded to top applicants
- Focus area in Pure Mathematics, with significant course load in Computer Science and Statistics
- Relevant Coursework: Data Structures and Algorithms, Partial Differential Equations, Parallel Computing & Distributed Programming, Complex Analysis, Modern Algebra, Software Engineering, Probability

## EXPERIENCE

### Technology Summer Analyst (Data Science)

May 2022 – Jul 2022

*Credit Suisse*

*Singapore*

- Delivered an end-to-end Data Science (NLP) project to automate Know-Your-Client (KYC) compliance checks
- Trained downstream model using BERT that predicts compliance risk level of client, fine-tuned to 93% f1-score
- Integrated newly installed Nvidia GPUs into company VMs, greatly increasing model training speed by > 95%
- Exposed to Data Exploration, Literature Review, Hyper-parameter Tuning and Inference Optimization

### Software Engineer Intern

Aug 2021 – Dec 2021

*JobKred*

*Singapore*

- Devised and architect-ed complete smoke testing suite for company's flagship application
- Implemented these tests using Cypress.js which is in production, greatly reducing manual testing
- Performed basic backend changes on company's job analytic tool using Kotlin Spring Boot

### Software Engineer Intern

May 2021 – July 2021

*Datature*

*Singapore*

- Developed various front-end features to enhance image annotation experience, increasing user retention
- Implemented UI/UX features and APIs on Portal, an open-source app that analyzes CV Model performance
- Technologies used: React Typescript, Leaflet.js, Blueprint.js, Next.js

## TECHNICAL SKILLS

**Languages:** (*Proficient*): Python, TypeScript, Scala (*Familiar*): Kotlin, Java, OCaml, R

**Data Science Frameworks:** Huggingface, Ray-tune, Pytorch, OpenCV2, pandas, scikit-learn, gensim, nltk

**Developer Frameworks:** React, Next.js, Cypress.js, Spring Boot

## PROJECTS

### Personal Website

Mar 2021

<https://www.kzhaoyuan.com/>

- Built and hosted a personal website using React.js, Material-UI and AWS S3
- Included utilities for Search Engine Optimization on website to maximize visibility

### Saving Yale-NUS

Sep 2021

<https://www.savingyalenus.com/>

- Developed a blog that consolidates reflections regarding the recently announced merger of Yale-NUS and USP
- Technologies used: Next.js, Typescript, AWS(EC2)

## EXTRACURRICULARS

### Yale-NUS Hacks

Aug 2021 – May 2022

*Vice-President (Workshops)*

- Organized a semester-long technical interview workshop to help 6 students who aspire to work in technical roles

### Peer Tutor

Jan 2021 – Present

*Yale-NUS College*

*Singapore*

- **YSC1212 Introduction to Computer Science:** Hosted one-to-one and group sessions explaining core computer science (CS) concepts like recursion and unit-testing to 40 students, some whom are non-CS majors
- **YSC3206 Introduction to Real Analysis:** Conducted group and one-to-one sessions explaining abstract mathematical concepts such as limits, convergence, continuity, differentiability and metric spaces