

# Denton Tran

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## Summary

I am interested in all things to do with tech and data and am able to apply my broad range of skills from front-end programming to data analytics. My greatest interests being distributed database systems, statistical modelling and artificial intelligence.

## Education

High School, Graduated Normanhurst Boys High School, 2016 to 2020  
Currently studying a double degree of Computer Science and Science (Majoring in Statistics) at UNSW, 2021-2025

## Experience

### **Tutor at Alchemy, 2021-2022**

- Collaborated with students to complete homework assignments, identify underdeveloped skills, and correct weaknesses.
- Leveraged technology to accelerate learning by providing students with easy-to-access information.
- Planned lessons to strengthen weak subjects and build skills within allotted time frames.
- Enabled underachieving students to reach target attainment levels by providing individualized coaching and activities.
- Prepared lesson plans to meet goals identified in students' individualized study plans.

### **Work Placement at Atlas of Living Australia, 2022-2022**

- Worked with large volumes of ecological data and ensured the accuracy and validity of data throughout the investigation.
- Created generalized linear models and conducted model selection through different statistical modules in RStudio.
- Utilized models and ecological data to create visualizations through captivating and insightful plots.
- Wrote Python and Bash scripts to modify and clean datasets, and to create new data.
- Assisted in compiling a report for clients based on the investigation.

### **Data Science Internship at CHEP Network, 2023-2023**

- Built a streamlit app for a churn model that takes in a predefined dataset and outputs results.

- Collaborated with another intern to merge results into a full streamlit app, including a customer segmentation model.
- Utilized machine learning models such as logistic regression, Naive Bayes, Decision Tree, and Support Vector Machine to create insightful visualizations.
- Used Python for dataset modification, cleaning, and churn prediction.
- Employed HTML to enhance streamlit app compatibility and design.
- Presented the product to the CHEP Network Data team.

#### **Data Science Internship at Seeda, 2023-2023**

- Conducted analysis on client data, focusing on churn and seasonality in product sales.
- Collaborated remotely with another intern under the guidance of mentors.
- Utilized Snowflake to write SQL queries for data partitioning.
- Employed machine learning models such as ARIMA and k-means for creating insightful visualizations.
- Used Python for dataset modification, cleaning, and prediction of churn and future sales.

## **Volunteering**

- Being part of "The Producers" volunteering community in UNSW has been immensely rewarding where I had taken on responsibilities caring for produce, organizing distributions, and collaborating with other volunteers
- Appointed the role of Trainee Lead in UNSW's DEVSOC where I would lead a team of 5 with one other lead in a project based in React across a semester.
- Currently appointed the role of Projects Director in UNSW's Artificial Intelligence society where I would lead a team of 5 in an artificial intelligence project that spans throughout a year.

## **Projects**

*Hover over the project titles to access their respective links*

- **Lyrebird Abundance Investigation**  
Investigation on abundance and distribution of lyrebirds before and after the Black Saturday Fires, Atlas of Living Australia, Semester 3 - 2022
- **Password Checker**  
A data visualisation tool based in Vanilla js and Chart.js to identify flaws within one's password, T2 Holidays - 2022
- **Who's on Campus**  
Built a React App named 'Who's on Campus' which helps connect users by a map interface (the campus) and an account based system, Semester 1 - 2023
- **Churn Modelling**  
A Streamlit app that helps non-technical users clean data and be able to create churn models. Can be generalised for classification tasks, Semester 1 - 2023

- **ICR - Identifying Age-Related Conditions**

Completed in an active Kaggle competition (Use Machine Learning to detect conditions with measurements of anonymous characteristics) and ranked in the top 52%, Semester 2 - 2023

- **Pikastunner's Servant**

A Python based discord bot that stores and visualises university timetables purely with object-oriented programming, T2 Holidays - 2023

- **Research on SMS Spam detection**

Research on SMS Spam Classification incorporating feature engineering and a CNN-LSTM hybrid architecture, Semester 3 - 2023

- **SMS Spam detection**

A Kotlin based app aimed towards Android devices that scans incoming messages and predicts whether it is spam or ham. App is able to internally scan messages and analyse all past incoming users which is built through a lightweight CNN-LSTM architecture, T3 Holidays 1 - 2023

- **Pikastunner's Tavern**

Pikastunner's tavern is a web platform that hosts many different trending games. Currently, I have completed Pokedle which is a spinoff from the trending Wordle app, T3 Holidays 1 - 2023

- **Slide n go**

Using Flask as our backend and React as our frontend, alongside a team of 5, we built an application called SlideNGo takes in lecture slides and replaces every piece of text within the slide with a translated version in a range of different languages, Semester 1 - 2024

## Languages

- C
- R
- JavaScript
- SQL
- Kotlin
- Python
- Bash

**March 20, 2024**