

RYAN CHHONG

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SKILLS

- Languages - Python, SQL, R, MongoDB, Java, Bash, C++/C, \LaTeX
- Libraries - Pandas, PyTorch, TensorFlow, PySpark, scikit-learn, matplotlib, numpy, ggplot
- Other - Git, AWS, DataBricks, Mocha, Docker, Linux, Confluence, Jira
- Hobbies - Ricing, Mechanical Keyboards, Music

EXPERIENCE

May 2022 -
August 2022

Machine Learning Engineer Intern, *PROS*

- Researched various techniques in order to improve explainability of complex models using **Python**.
- Reduced processing time of explainability metrics by 75% using **PySpark** and **Pandas**.
- Investigated and implemented potential models for time-series prediction using **Tensorflow**.
- Presented seminars on research findings to both team members and upper management.

May 2021 -
August 2021

Software Engineer Intern, *RF Code*

- Updated software created in **React** to display external analytics to help diagnose device failures and provide warnings for future failures.
- Wrote custom code to facilitate fetching and caching data into a **PostgreSQL** Database.
- Designed a custom API rate limiter using **Redis**.
- Utilized **AWS Lambdas** to automatically fetch updated analytics and unify the updates to an SQL database.

EDUCATION

August 2021 -
May 2023

M.S., Computer Science, *University of Texas at Austin*

- GPA: 3.86
- Relevant Coursework: Machine Learning, Reinforcement Learning, Fundamentals of Predictive Machine Learning, Statistical Optimization, Data Visualization, Randomized Algorithms, Dependable Computing Systems

August 2019 -
May 2022

B.S., Computer Science, *University of Texas at Austin*

- Minor: Statistics and Data Science
- GPA: 3.98
- Relevant Coursework: Data Mining, Neural Networks, Artificial Intelligence, Statistical Learning and Inference, Probability, Linear Algebra, Differential Equations, Calculus, Data Structures, Algorithms, Operating Systems, Computer Architecture, Functional Programming

PROJECTS

March 2022 -
May 2022

Wordle Reinforcement Learning Agent

<https://github.com/rchhong/wordle-rl-agent>

- Utilized Word Embeddings and REINFORCE to create an agent capable of learning how to play Wordle.
- Created model, training pipeline, environment, and TensorBoard logging utilizing **PyTorch** and **Python**.
- Trained agent to have a **70% Win Rate** with an average game length similar to humans.

April 2021

IBM HR Analytics Employee Attrition Dataset Analysis

- Created Decision Trees, Ensemble Method Classifier, Neural Nets, K-Nearest Neighbours Classifier, and Naive Bayes Classifier using **scikitlearn** and **numpy** to predict employee attrition.
- Used **Python** and **pandas** to performed data cleaning, unsupervised anomaly detection, and feature engineering to improve the performance of these models.

EXTRACURRICULARS

September 2022
- Present

Tech Director, *UT Mechanical Keyboard Club*

- Lead a team of software engineers to facilitate the construction and deployment of a club website from scratch.
- Set up DevOps architecture and documentation to ensure CI/CD.
- Taught members how to use version control and basics of web development using **Git**, **HTML**, **CSS**, and **Javascript**.

January 2020 -
August 2021

Technical Team Member, *Fretail Hackers*

- Wrote mobile event app for attendees and to streamline the event experience for sponsors and organizers using **React Native**.
- Used **Angular**, **Node**, **Express**, and **MongoDB** to optimize the HackTX applicant portal, integrate a sponsor portal, and facilitate remote Discord account verification.
- Wrote a tutorial and hosted a workshop on account authentication.