Daniel Xu

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Skills

Languages: C/C++, Java, Python, R, HTML, CSS, Javascript
Frameworks/Libraries: React, Next.js, Bootstrap, Tailwind, Firebase, pandas, Matplotlib, NumPy, jQuery
Developer Tools: Git, VS Code, Jupyter Notebook, Figma, Eclipse, npm, Google Cloud Platform, Piskel, Github

Experience

Fullstack Web Developer   November 2022 – Present
Discourse Agency
- Created interactive **Privilege Walk API** using **Next.js** and **Tailwind**, as branch of Discourse Agency Website
- Implemented **Firebase** to store previous user responses in **Realtime Database**, and retrieve data to simulate privilege walk with **10 other users**
- Developed algorithm to recommend **9 different** company services, including Inclusionary Education and Crisis Response based on questionnaire responses, with **Javascript**
- Coordinated meetings with design team to devise layouts and functionality using **Figma**, **Github**, and **Zoom**

Projects

Stock Market Sentiment Analyis | *Python, pandas, Matplotlib, VADER*   December 2022 - January 2023
- Generate investment insight for **Facebook** and **Tesla** through sentiment analysis with **Python** and **VADER**
- Scraped **500 news headlines** into data tables and produced time series data visualizations to predict stock market sentiment, using **pandas** and **Matplotlib**
- Programmed algorithm to filter verbatim copied headlines, improving statistical modelling accuracy by **4.8%**

Credit Card Approvals | *Python, pandas, NumPy, scikit-learn*   December 2022 - January 2023
- Built Machine Learning model to predict credit card application approvals with **pandas**, **numpy**, **scikit-learn**
- Pre-processed train/test data sets with missing value imputation, label encoding, and scaling to achieve **100% model classifier accuracy**, using **pandas** and **NumPy**
- Performed **grid search** to find **2 optimal hyperparameters** of logistic model, increasing performance potential

Expense Tracker | *React, CSS, Javascript*   September 2022 – October 2022
- Programmed expense tracker web application using **React**, helping users visualize annual expenses by month
- Designed compelling gradient animation border for expense form using **keyframes** in **CSS**
- Implemented dynamic expense chart, displaying monthly expenses with **inline styling** and **React useState**

CodeMan | *Java*   July 2022 – Present
- Designed and programmed 'Pokémon' inspired 2D game using **Java**, **JPanel**, **JFrame**, and **Graphics2D**
- Created sprites and tiles with **Piskel**, rendered **70x60 tile** world map with **InputStream** and **BufferedReader**
- Optimized frame-to-frame render time to **0.05s** with delta game loop and FPS limiter, using **java.awt**

SIMON | *HTML, CSS, Javascript, jQuery*   May 2022 – June 2022
- Developed 'Simon' inspired memory game with **HTML**, **CSS**, **Javascript**, and **jQuery**
- Integrated **CSS animations** and sound effects with button clicks using **jQuery** to enhance **UX** design

Extracurriculars and Leadership

Executive Committee Member | *Skyky Charity Concert*   May 2021 – August 2021
- Executive Committee Member for **2021 Skyky Charity Concert for SickKids Foundation**
- Raised **$13000** for SickKids Foundation and received letter of commendation from **Justin Trudeau**

Competitive Swimmer   March 2015 – January 2022
- Qualifier for the Ontario Swimming Championship, Ontario Youth Junior Championship, Eastern Nationals, medalist at Provincial AA Swimming Championship and Age Group Internationals

Pianist   July 2007 – Present
- ARCT Performers (RCM) level pianist, Ontario Music Festivals Association Provincial Finalist

Education

University of Waterloo   Waterloo, ON
Bachelor of Computer Science (GPA: 3.92)   *Expected Graduation Date: April 2026*