

BRYCE DYCK

3rd Year Computer Science Major
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TECHNICAL SKILLS

Programming : Python, Java, C++, C, MATLAB, HTML*, CSS*, JavaScript*

Others : React*, Express*, node.js, JUnit, Git

* currently learning

EDUCATION

Bachelor of Computer Science (BCS), University of British Columbia

Sep 2023 – Present

BSc (Honours in Biology with Distinction, Minor in Mathematics), University of British Columbia

Sep 2016 – Apr 2021

TECHNICAL PROJECTS

Six Degrees of Spotify | *Personal* | *React, Express, JavaScript, CSS, HTML*

Feb 2024 – Present

- Building a Spotify UI to allow further sorting/customization of playlists, and an associated game connecting two artists by their related artists using Spotify API
- Using React and Express to implement Spotify OAuth flow, keeping the client secret inaccessible to the end user
- Implementing data persistence to store and retrieve authorization and refresh tokens to prevent user from having to login each time they visit the app
- Utilizing JSX and Styled Components to create reusable and maintainable components improving code readability, testability, and modularity
- Deployed on Heroku using Node.js for server-side scripting and application management

Fantasy Hockey Trade Recommender | *Personal* | *React, Express, Victory, JavaScript, CSS, HTML*

Apr 2024 – Present

- Building a Yahoo! Fantasy Hockey companion app to recommend trading partners and specific trades based on team and league relative strengths by position
- Using React and Styled Components to create an easy to use UI with pleasing player profile and trade visualizers
- Utilizing the Victory data visualization library to allow the user to quickly understand the impact potential trades will have on their scoring at specific positions and overall

Touch Grass | *Hackathon* | *React, JavaScript, CSS, HTML*

March 2023

- Built a self-improvement web app that predicts the best time to go outside based on local weather and user preferences using React, Typescript,
- Utilized data from the OpenWeatherMap API to access 24 hour weather forecasts
- Implemented React and React Suite components to create an intuitive UI for the end user

Restaurant Reviewer | *Academic* | *Java, JUnit, JSwing*

Sep – Dec 2023

- Built a Yelp type desktop app that tracks restaurant visits and summarizes ratings for individual restaurants
- Used UML diagrams to visualize the project and applied OOP principles such as design patterns and interfaces to develop the core logic for the application
- Implemented JSON for data persistence to store and retrieve user data, and developed a basic UI using JSwing for ease of use for the user
- Applied TDD approach and used JUnit to develop test cases to ensure complete code coverage

RESEARCH AND WORK EXPERIENCE

Research Tech II, Supervised by Rebecca Tyson, Tyson Lab – UBC

May 2021 – Jan 2023

- Led a project on discovery and analysis of “Phase Tipping” extinction events in discrete time systems using large data sets and MATLAB simulations to analyze behaviour and predicted frequency of the newly discovered events
- Wrote paper (“Host-parasitoid systems are vulnerable to extinction via P-tipping: Forest Tent Caterpillar as an example”) for the project currently in submission at the Journal of Mathematical Biology
- Contributed to other projects in the Tyson Lab through feedback and discussion in lab meetings

Honours Thesis, Supervised By Sally Otto - Otto Lab – UBC

May 2020 – Apr 2021

- Assisted in analyzing health and outlook of critical Fraser River Salmon population; created new mathematical theory to help understand impact of specific fishing measures on potential population recovery using Mathematica
- Authored an undergraduate-thesis on the project - “Rare Fish and the Issue of Bycatch”

Restaurant Manager/Bartender, Michelin Awarded restaurant groups

Sep 2016 – Sep 2023

- Designed and created innovative cocktails and techniques and menu creation for Michelin awarded Bar and Restaurants in Mount Pleasant and Gas Town; assisted the original team in opening the new Stanley Park Brewpub
- Managed restaurant on weekends, staffed, ensured guest experience, monitored sales, and ensured safe service