Frank

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Education

- **Candidate of the Bachelor of Environmental Studies** — University of Waterloo
  2A Geomatics — *Class of 2022*

Technical Skills

- **Programming Languages**: Python, Javascript, SQL, Java, C#, HTML, Racket, LaTex
- **Tools**: ArcGIS, Visual studio, Git/Github, Gitlab, SVN, Tomcat, JDBC, Wing, Eclipse, DrRacket, Unity, Webstorm, Editplus, Oracle VM, Excel, Photoshop,
- **Frameworks & Libraries**: JQuery, Bootstrap, Node.js, EasyUI, JSP, MVC, Scikit-Learn, Numpy, Pandas, Matplotlib, Math

Projects

Coffee Shop Map (duyihang0.carto.com)
HTML, JavaScript, CSS, GeoJSON, ArcGIS, SQL, Excel

- Made a coffee shop map web application that allows the user to view a list of coffee shops with their respective price ranges on a map
- Implemented filtering feature that allows the user to selectively view coffee shops by price range
- Created functions that accurately display coffee shops positions on the map based on their latitudes and longitudes stored in the database
- Used HTML to present the user information about price fluctuation of coffee and tea with varying circle sizes and shades
- Retrieved base map information from ArcGIS

Share Price Prediction (Python Machine learning)
Python (Scikit-Learn, Numpy, Pandas, Matplotlib, Math)

- Developed and implemented algorithms such as Newton Forward Difference Method, Normal Distribution, Linear Regression to fit historical price trend
- Built daily-updated share prices line chart by connecting third-party api from Yahoo Finance
- Accomplished automation data-tracking and financial decision making referring to the result of the prediction

Customer Relationship Management(full stack)
JAVA, HTML, CSS, JavasScript, JQuery, SQL, JDBC, JSON, XML, Tomcat, MVC

- Implemented login function that queries SQL database to check whether an account exists, and guides the user to the sign-up page if account is not found
- Used MD5 encryption to protect user account
- Created a system that allows the user to view customer information, including transaction and customer contract information.
- Developed functions that allows the user to find and make appropriate changes to customer information

Twin Goose (Unity 2D Game)
C#, Unity, Gitlab, Photoshop

- Developed a complete game that involves player movement control, shooting, killing enemies, and weapon selection
- Allows the player to perform various game actions with keyboard input
- Implemented a level based system where player needs clear the previous level to proceed to the next level with increasing difficulty
- Collaborated with teammates on GitLab