

Gordon Wang

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EDUCATION

- **University of Waterloo** Waterloo, ON
Computer Science and Financial Management; Cumulative Average: 91/100 *Sep 2023 – May 2028*

EXPERIENCE

- **Advantage Group International** Toronto, ON
Software Developer Co-op *May 2024 - Present*
 - **Database (PostgreSQL):** Developed SQL update scripts to generate tables and views for data collection.
 - **Back-end (Java Spring Boot):** Developed DAOs, JPA Repositories, Rest API queries, Quartz jobs, and Junit tests for data collection in the back-end of company survey software. Created an entire back-end process to convert user IP addresses into Geographic location details and storing the data into database views.
 - **Front-end (Angular):** Enhanced features and performance of existing web app to provide an intuitive data management interface.
 - **Data Migration and ETL Process:** Orchestrated a data migration by developing SQL scripts to transfer data between PostgreSQL tables. Implemented an ETL process to move data from the database to the data warehouse.
 - **Tableau:** Engineered Tableau dashboards with map and chart views to report on user geographic info.
 - **Agile Development Cycle:** Daily scrums, code reviews, YouTrack, and Git version control.
- **Waterloop Design Team** Waterloo, ON
Web Team Lead/Full-stack Developer *Apr 2022 - present*
 - **Front-end Development (React/Typescript/Redux/Styled-components/CSS/Figma):** Worked closely with UX/UI designers and other developers to ensure that the features meet both aesthetic and functional requirements. Tasks involve creating an Amazon-like eCommerce feature with product listings and detail pages.
 - **Back-end Development (Node.js/Express/Knex):** Worked with queries and APIs to connect Content Management Site with Main Website. Tasks include implementing Google Authentication and a back-end process for sending Gmails via Gmail APIs.
 - **Leadership Role:** Organized all the meetings, planned the term goals and delegate different task.
- **G12 Uni (UWaterloo Velocity Startup)** Waterloo, ON
Full-stack Developer *Nov 2023 - Apr 2024*
 - **Front-end Web Development (React/Route/CSS/NextUI):** Developed dynamic web pages with responsive design while optimizing existing components.
 - **Back-end Web Development (Firebase):** Integrated RESTful APIs and managed database updates.
- **University of Waterloo Residence Council** Waterloo, ON
Vice-president of Finance *Sep 2023 - Apr 2024*
 - **Communication and Teamwork:** Co-led team of 8 members to organize events and budget costs for residence.

PROJECTS

- **Robo Stock Portfolio Advisor (Python, Panda, NumPy, Jupyter Notebook):**
Developed a Python program to create the safest possible stock portfolio from a given list.
 - Designed and implemented an algorithm to analyze and compare stock correlations based on historical data.
 - Utilized Pandas for data manipulation and analysis, including data cleaning, transformation, and visualization.
 - Leveraged NumPy for numerical operations and efficient handling of large datasets.
 - Generated a diversified portfolio by selecting the least correlated stocks to minimize risk.
 - Used Jupyter Notebook to display the results step by step.(Github: <https://github.com/G-Wang12/Safe-Portfolio-Robo-Advising>)
- **A2 Console User Geographic Info Collection (PostgreSQL, Java Spring Boot, Tableau):**
Developed a new Geographic info collection feature for Advantage Group's survey software.
 - Created SQL update scripts to generate tables and views for storing user geographic information.
 - Implemented a process in the Java Spring Boot back-end to store user IP addresses during survey data transfer.
 - Developed a data transfer service and Quartz job for converting the stored IPs into Geographic info for survey users.
 - Created a Tableau report containing multiple chart views to analyze historical geographic data from survey users.
 - Developed data migration scripts to transfer old raw survey response data into the new geographic info table.

- **G12 Uni Platform (React, Firebase):**
Platform to simplify the university selection process for high school students by connecting them with their university community and guiding them to find the right university and major. (Link: <https://g12uni.com/>)
- **Waterloop Main Site (React, Typescript, Redux, Styled-components, HTML, CSS, REST API):**
Site to represent Waterloo professionally so we can help establish and sustain our network of supporters and sponsors, as well as showcase all the cool stuff the team is working on. Also includes a recruitment section.
(Github: <https://github.com/waterloop/waterloop-website>)
- **Waterloop CMS (React, Typescript, Javascript, Redux, Node.js, Express.js, REST API, HTML, CSS):**
Content Management System for Waterloo sites. Allows executives to directly update the content on main site without needing to change the codebase themselves.
(Github: <https://github.com/waterloop/waterloop-cms>)
- **Waterloop Executive Dashboard (React, Typescript, Redux, Styled-components, HTML, CSS):**
An all-in-one ATS and member analytics tool used by subteam leads.
(Github: <https://github.com/waterloop/executive-dashboard>)
- **Summer Camp Site (React, Typescript, Javascript, HTML, CSS):** Developed a website using React.js to help promote a friend's summer camp. Integrated Google Analytics to view user statistics.
(Github: <https://github.com/G-Wang12/Summer-Camp-Site>)

TECHNICAL SKILLS

- **Languages:** Java, Python, C, C++, JavaScript/TypeScript, SQL, HTML/CSS, Racket
- **Libraries/Frameworks:** React.js, Node.js, Express.js, Knex.js, Redux, Styled-components, Angular, Spring Boot, PostgreSQL, pandas, NumPy, matplotlib, yfinance, Quartz, JPA, Hibernate
- **Developer Tools:** Git, Gitlab, Docker, VS Code, IntelliJ, Figma, Clickup, YouTrack, Firebase, Jupyter Notebook, Tableau

SOFT SKILLS

- **Fast Learner:** Self-taught Full-stack development with React.js and Node.js using open-source projects. Learned Java Spring Boot and Angular on the job and still finished all tasks ahead of schedule.
- **Teamwork and Communication:** Elected to high school Executive Student Council for all three years eligible, serving as President in the final year. Led the council in budgeting and event-planning.
- **Attention to Detail:** Always paying attention to details to help avoid bugs in software systems.

NOTABLE FEATURES IMPLEMENTED

- **Google Authentication on Executive Dashboard (React, Typescript, Redux, REST API):**
Implemented the whole Google authentication process on Executive Dashboard user login.
 - Imported and configured the @react-oauth/google library
 - Developed components to manage the Google authentication steps on the front-end
 - APIs to manage user profile and access token in back-end
 - Stored and retrieved access tokens using cookies and Redux
 - Validated access tokens on both front-end and back-end
- **Gmail API on Executive Dashboard (React, Typescript, Redux, Styled-components, REST API):** Feature to send applicants acceptance/rejection emails with google Gmail APIs.
 - Created a popup dialog for user input of email addresses and bodies on the front-end
 - Built back-end APIs to send emails using Gmail API with user access tokens
 - Validated access tokens and updated responses in the database
- **Merch Store Feature on Main Site (React, Typescript, Redux, REST API, Knex):**
Amazon-like store with products list and product details pages that allows users to purchase Waterloo merch.
 - Designed new PostgreSQL tables using Knex
 - Created database seeds for mock data in CMS
 - Developed APIs to provide merch product data to the main site
 - Implemented pages and hooks to display product lists and details on the front-end