Justin Ding

 Portfolio | justin.ding@mail.utoronto.ca | justin-ding | Justinding765

EDUCATION

University of Toronto Scarborough — Scarborough, ON, CA
*Honors Bachelor of Science in Computer Science and Statistics(Co-Op) - **GPA: 3.3/4.0*** — *Sept 2019 – Dec 2023*
- **Relevant Coursework:** Algorithm and Data Structures Design and Analysis, Databases and Web Applications, Software Engineering and Design, Computer Organization, Systems Programming, UX and UI design, Probability and Data Analysis.

EXPERIENCE

IBM — March 2024
Incoming Backend Developer — *Markham, ON, CA*

Microsoft Nuance — May 2023 – Aug 2023
Full-Stack Developer Intern — *Montréal, QC, CA*
- Increased the speed of the test stage in a GitLab **Continuous Integration/Deployment (CI/CD)** pipeline by **800%** by building a Docker image that executes a Dart-based link checker; allowing automatic early detection of broken links.
- Provided a user interface for team members to view the status of their projects by developing a **CI/CD** pipeline in GitLab that is scheduled to run monthly and uses a Docker image which executes a self-developed Python script that collects the status reports of all the company repositories; this information is then sent to Microsoft Teams through a Webhook.
- Implemented a Python project that collects and outputs essential data from several internal remote repositories; the project was then containerized using Docker and integrated into a **CI/CD** GitLab pipeline for **automatic website deployment**, allowing users to view the most updated data from the repositories.
- Designed a landing page for the company's main products using HTML/CSS/JavaScript and the Hugo framework, which is viewed by **hundreds of individuals** daily.

Office of the Superintendent of Financial Institutions — Jan 2022 – April 2023
Full-Stack Developer Intern — *Ottawa, ON, CA*
- **Fully automated** the table creation process that would originally take **8 minutes** on average using HTML/CSS/JavaScript to parse CSV files into a SharePoint table that adheres to WCAG accessibility guidelines.
- Secured contents of a website, allowing team members to test confidential web pages, by using HTML/CSS/JavaScript to randomize the contents while still preserving the structure and functionality of the page.
- Developed a link checker script that **fully automated** the link checking process that would originally take **10 minutes** on average, enabling team members to detect invalid links on web pages using JavaScript, and Node.js.
- Developed a script that **fully automated** the process of getting all subsites and pages starting at the root of the website using Ajax and RESTful API; this allowed team members to view the visual representation of the website tree structure.

PROJECTS

AI Korean Webtoon Translator (Link) | *Python, Golang , React.js, Google Cloud, Kubernetes, Docker* — Dec 2023 – Present
- Developed a full-stack website for scraping, translating, and downloading webtoons using React.js, Python, and Golang for the technology stack and the Google Cloud Kubernetes Engine for deployment on a public domain.
- Implemented the image translation using Google Vision API and inpainting for accurate text detection and removal, coupled with Google Cloud Translation API, color analysis and text wrapping techniques for visual consistency and readability.
- Utilized multiple concepts such as goroutines and various AI APIs for concurrent webtoon translations and implemented auto scaling, rolling updates, and an Ingress to manage and distribute website traffic.

AI Mock Interviewer/Job Application Tracker (Link) | *Docker, Kubernetes, AWS, CI/CD* — Jan 2023 – Present
- Created and deployed a full-stack website using Docker and the Cloud Formation, CodePipeline and ECS AWS services following the **MERN** (MongoDB, Express.js, React, Node.js) technology stack which assists users in their job search.
- Utilized the "gpt-3.5" API model in developing a feature for generating custom behavioral and technical interviews, and aiding in the job application tracker feature which allows users to add/update/delete job applications by summarizing job descriptions.
- Created a video recording widget that allows users to record themselves during the interview and save the recordings to a media gallery for later review.

Sports Activity Finder (Link) | *HTML/CSS, React.js, Flask, SQL, Git, Agile, CI/CD, Docker* — Sep 2022 – Dec 2022
- Created a full-stack website using Three-tier Architecture that enables users to find individuals to participate in their desired activities with, and communicate with their group members through a built in chat-application.
- Implemented user-specific widgets for in-group chatting using Socket.IO, account registration/login/deletion, creating/joining groups based on skill level and location preferences, and developed a search algorithm that enables users to filter groups for their desired activity based on their skill level, and location.

TECHNICAL SKILLS

Languages: JavaScript/TypeScript, Python, Golang, HTML/CSS, MongoDB, SQL, Java, C/C++/C#, Neo4j
Frameworks/Libraries: React.js, Node.js, Hugo, Python Flask, jQuery, Jinja, Django, Bootstrap, Express.js, PyTorch
Developer Tools: GitHub/GitLab, Docker, Kubernetes, JIRA, Google Cloud, AWS, VS Code, Jupyterlab, Linux