ELSIE ZHU

📞 416-846-3429 ✉ elsie.zhu2003@gmail.com in elsie-zhu ⚫ elsiezhu

Education

University of Toronto   **September 2021 – April 2025**

Honours Bachelor of Science in Computer Science   *Toronto, ON*
- **Relevant coursework**: Data Structures and Analysis, Software Design, Intro to the Theory of Computation, Computer Organization, Software Tools and Systems Programming, Probability with Computer Applications

Technical Skills

Languages: Python, Java, Javascript, Typescript, C, HTML/CSS, SQL
Frameworks/Tools: React, Django, Node.js, AWS, REST API, DynamoDB, Docker, Jenkins, Bash, Git

Experience

Amazon   **May 2023 – July 2023**

Software Development Engineer Intern   *Toronto, ON*
- Accelerated the debugging process for frequent points of failure within the flow of materials in fulfillment centers by modifying and adding infrastructure to existing applications.
- Created a front-end application with multiple points of integration with internal services using React and Typescript.
- Implemented an API for retrieving fulfillment technology data from internal service logs using Java.
- Integrated ticket workflow applications with AWS SNS, DynamoDB, and serverless computing to enhance and track the diagnosis and mediation of errors in fulfillment centers.
- Wrote thorough unit and integration tests to ensure smooth deployment to production environments.
- Presented project design proposal to stakeholders, including other teams within Amazon Fulfillment Technologies.

Bell Canada   **May 2022 – August 2022**

Technical Specialist Intern   *Mississauga, ON*
- Reduced manual time by **5+ hours per week** by developing a Jira defect creation automation project using Python and integrating it into Jenkins regression test suites.
- Improved CI/CD pipelines by building, testing, and deploying automation scripts to Jenkins servers.
- Extracted and analyzed regression data from JUnit test reports using Bash to be used by 4 development teams.
- Performed thorough unit testing and debugging to ensure proper performance of automation scripts.
- Worked as a part of an Agile team to maintain and facilitate deployment to testing and staging environments.

Projects

Change in COVID-19 Misinformation Over Time ⚫ | *Python, Scrapy, PyGame*
- Developed an application that detects and analyzes the rate of misinformation on Twitter with a peer.
- Produced a dataset of **50+ myths** pertaining to COVID-19 by aggregating data from web-scraping using Scrapy.
- Utilized the Twitter API to efficiently collect and refine the data in **10 000+ tweets**.
- Designed an efficient and successful misinformation detection algorithm that generated results with **90% accuracy** using approximate string matching and sentiment analysis.
- Wrote a research paper that analyzed the threat of misinformation to public health based on the gathered results.

ShopGreen ⚫ | *React,js, Flask, MySQL, Google Cloud*
- Developed a web-app to connect users to green businesses in Toronto as a part of the UofTHacks 2022 Hackathon.
- Produced and designed a functional, interactive front-end UI with **React** by leveraging component-driven development.
- Implemented back-end application with **Flask** using Python to process and maintain business data.
- Created a MySQL server using cloud technologies such as Google Cloud in order to store business data efficiently.

FoodMood ⚫ | *React,js, Express.js, Node.js, MongoDB*
- Created a full-stack web application that matches and introduces users to their preferred recipes using the MERN stack.
- Implemented swiping mechanisms and animations to visualize user preferences in the front-end UI.
- Scraped **1000+** data points, including hundreds of dishes with their respective cultures and recipes using Python.
- Increased the efficiency of back-end data fetching and updating using MongoDB.

Leadership and Extracurriculars

Innis College Student Society   **May 2023 – Present**

Social Director   *Toronto, ON*
- Manage the operations of the Social Portfolio, including organizing a series of events throughout the academic year as well as creating, updating, and presenting a detailed budget.
- Maintain consistent communication with venues, vendors, other council members, and the Innis community.