Aryan Abed-Esfahani

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EDUCATION

University of Waterloo — Expected 2024
Majoring in Computer Science with a Minor in Physics
CGPA: 3.88/4.00
Awards: President's Upper-Year Award, President's Scholarship of Distinction, National AP Scholar

EXPERIENCES

University of Waterloo
Research Assistant - Prof. Hachisuka — September 2022 - Present
- Developing a fluid simulation program utilizing **Monte Carlo methods** written in **Julia** and **C++**.

Capital One
Software Engineer - Intern — September 2022 - Present
- Using **Python** to develop a CLI tool capable of modifying configuration files used for the back-end API.

Software Engineer - Intern — January 2022 - April 2022
- Led the development a central data organization program made with **React** to consolidate data from multiple sources, resulting in cutting the number of databases needed by a **factor of 3**.
- Developed **6 REST API endpoints** made using **Python** with the **boto3 SDK** hosted on **AWS Lambda** capable of propagating all changes to the database in **less than 2 seconds**.

OpenText
Software Developer - Intern — May 2021 - August 2021
- Developed and maintained a web-based internal tool used by **more than 800 employees**, using **Java** to add string parsing and status check APIs.
- Added a control-flow visualization feature for itineraries using **JavaScript** with **XHTML** and **PrimeFaces** framework, **reducing user look-up time by 50%**.
- Utilized **Docker** and **TeamCity DevOps** for multiple fast and secure deployments on servers alongside **Kubernetes** to achieve smooth scalability and **0 downtime**.

SKILLS

- **Languages**: C/C++, JavaScript, TypeScript, Python, HTML5, CSS3, Java, LaTeX, Julia, C#, SQL
- **Libraries/Frameworks**: React, React Native, NextJs, Gatsby, SocketIO, Electron, Flask, ExpressJs, PrimeFaces
- **Technologies:**, Node.js, AWS, GCP, Git, Firebase, Docker, Kubernetes, REST, GraphQL

EXTRACURRICULAR ACTIVITIES

- **UW Blueprint - Project Developer** — September 2022 - Present
  Using **GraphQL** and **React** to develop a web portal for Feeding Canadian Kids non-profit organization.

PROJECTS

Songyo ▶
- Designed a web-app game using **ExpressJs** and **Node.js** for the back-end and **SocketIO** to send and receive data from the front-end.
- Deployed to **Heroku** with functional logging, recording **over 100 players per month** for more than 6 months.

TD Visualize
- Led a team of 3 to design a **hackathon-winning** data visualization web application by using **Python** and **Flask** to visualize personal financial data provided by the **TD Da Vinci API**, making it easier to prevent fraud.
- Generated multiple graphs, such as heat maps and user friendly charts, by using **Google Maps API** and **chart.js**.