SHAHEER HASAN

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Education

University of Waterloo	Sept. 2021 – April 2026
Candidate for BASc in Computer Engineering	**GPA: 3.9/4.0**	*Waterloo, Ontario*

Achievements: Dean's Honours List for 1A Term, President's Scholarship of Distinction
Relevant Coursework: Data Structures and Algorithms, Digital Computers, Digital Circuits and Systems, Numerical Methods
Extracurriculars: Software Developer at Waterloop (Design Team), Class WEEF Rep, Intramural Basketball

Skills

Languages	Python, C++, Java, C#, JavaScript/TypeScript, SQL, HTML, CSS
Frameworks	React.js, Next.js, Vue.js, Node.js, Express.js, Django, Flask, NumPy, Pandas, Scikit
Technologies	Unity, Azure, AWS, Web3, GCP, Jupyter, Android, Figma, PostgreSQL, RESTful APIs, Git, Postman

Experience

Software Engineer | Cognixion – *Toronto, Ontario*   **Jan. 2023 – April 2023**

- Developed multiple features on a **Unity** augmented reality app by applying C# to implement **Figma** UI designs and invigorate the backend processes, allowing impaired users to speak with others using **brain-computer interface** and **gaze tracking**.
- Streamlined Unity-Android message routing in backend with **C#** and **Java** to optimize module version display time **threefold**.
- Engineered new **Android Haptics** feature using Unity and integrated haptic customization tool for the UX team.
- Implemented offline text-to-speech utilizing Unity and in-house **NLP engine** to improve speech output time by **40%**.
- Created a CRUD API using **AWS** to store data within DynamoDB and host HTTP endpoints to enable data manipulation.
- Built a **CI/CD** pipeline within **Azure** to boost staging deployment time by **60%** and increase code coverage efficiency.

Software Developer | Ford Motor Company – *Waterloo, Ontario*   **May 2022 – Aug. 2022**

- Utilized Python to allow users to send **SSH** commands through **QNX**, decreasing daily automation runtime by **~32%**.
- Authored **15+** test scripts in **Python** for OS protocols to gather statistical data and scale bring-up software reliability.
- Refined software using C in a **Linux**-based environment improving areas of the platform bring-up and create new platforms.

CEO & Co-Founder | Discovery Crate – *Toronto, Ontario*   **Sept. 2020 – Dec. 2020**

- Founded a **start-up** that created cultural-themed snack boxes to help local small businesses affected by COVID-19.
- Demonstrated **PM** skills to generate **hundreds of dollars** in revenue and win the Best Pitch award over **250+** competitors.

Projects

Djoggers – Ecommerce App 🐙 | *Django, Python, Vue.js, Stripe*

- Developed an online footwear store using **Vue.js** for the frontend and integrated **Stripe API** to handle user payments.
- Architected backend with **Django** to build the order and product models, views, & serializers.
- Manufactured backend **REST API** using the **Django REST** framework for frontend to retrieve data through HTTP requests.

Athletic Avenue 🐙 | *TypeScript, Next.js, React.js, Zustand, Vercel*

- Constructed a fully responsive sports blog app using **TypeScript** in React.js, with search, like, and comment functionality.
- Integrated **OAuth** to conduct user authentication and **Google Cloud Platform** to maintain a database of **40+** users.
- Utilized **Next.js** techniques such as **Server-Side Rendering, Static Generation,** and **File-based Routing** to enhance the UX.

Taskmaster 🐙 | *PostgreSQL, Express.js, React.js, Node.js*

- Created a **PERN**-stack online checklist app to allow users to add, edit, delete tasks with a login & register feature using **JWT.**
- Designed UI using React.js attached to an **Express.js** server which exposes **CRUD** endpoints to a PostgreSQL database.

Real Estate Price Predictor 🐙 | *Python, Flask, AWS, Scikit, NumPy, Pandas, Jupyter*

- Built a linear regression model using Scikit to predict house prices in the GTA with an accuracy rate of **78%**.
- Employed NumPy and Pandas to perform ML procedures such as **data cleaning, outlier detection, & feature engineering.**
- Incorporated a **Flask** server to connect web app to the ML model with HTTP endpoints and deployed using **AWS EC2**.

CryptFund 🐙 | *Solidity, React.js, Netlify*

- Utilized React.js to create a **Web3** Crowdfunding app to let users create, track, and contribute to campaigns with ETH.
- Leveraged **Solidity** and Thirdweb to connect MetaMask wallet to complete blockchain transactions using **smart contracts**.