



DotsLogistics

Bringing businesses together



The Problem

- Lack of visibility on market demand, supply, and volatility of the supply chain.
- Other than references from peers, there are no digital marketing strategies to attract and reach new customers [A2].
- Mainstream ERP software are not ideal for SMEs due to the costs incurred by implementation and customization [9].
- 30-40% reduction in business depreciation of assets due to the impacts of COVID-19 [6, A2].
- Current SMEs lack data analytics and have unclear digital infrastructure [8].

Note: references can be found in the additional appendices provided

The Solution



- An open-source platform with AI capabilities that connects warehouses, logistics companies, and small businesses to find partners and complete transactions
 - Dots Logistics is tailored towards supporting B2B and B2C relationships, helping improve the efficiency within the supply and logistics sector.
-



Market Segment Insights



US \$155.5 Billion

Revenue recorded in 2019 for logistics sector only [14]



90% SMEs

of the Canadian economy is small to medium sized enterprises [3]



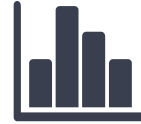
Growing E-commerce

Dramatic increase in e-commerce due to COVID-19, with a 32.4% growth in sales in 2020 [15]



Digitization

There is a demand to integrate technology that will reduce costs, automate processes and improve business performance within the supply chain [16].



Data Analytics

Supply chain organizations expect the level of machine automation in their supply chain processes to double in the next five years [17]



Customer Demands

Customers are demanding faster delivery, transparency and effective customer services [17].

What are Industry Players Saying?

Insights from the industry professionals we interviewed [A3]



Social Media

Effective marketing and social media has grown our e-commerce



Impact of COVID

COVID-19 has increased the manufacturing of goods due to high demands



No Market Insights

No insight on market outlook and trends that will impact business performance



High demand for shippers

There has been increased demand for shippers & carriers but businesses do not know where to find these opportunities

Major Competitor

Uber Freight

What they do

- A platform that matches truck drivers and shippers with carriers whose goods that need to be transported

What they do not provide

- Large carriers or manufacturing businesses tend to do business with trusted vendors.
- Shippers have no control of the quote provided to customers [12]
- Shippers look for ways to reduce costs through optimization of routes and volume of goods, which is not provided by Uber
- The platform does not expose shippers to a digital ecosystem to attract and find new customers.
- Shippers do not have an overview of the industry and market trends [12]



Other Competitors

SAP, Oracle

- SAP and Oracle are providers of enterprise resource applications and services across all industries and markets
 - ERP systems are expensive, the cost of implementation range between \$75 - \$750,000 for large businesses. The SMEs in this industry do not have the financial and talent to acquire and manage these systems.
 - These systems do not encourage collaboration and industry insight because they are customized to a business internal process.
 - They are often complex to use [4].
-



Our Product

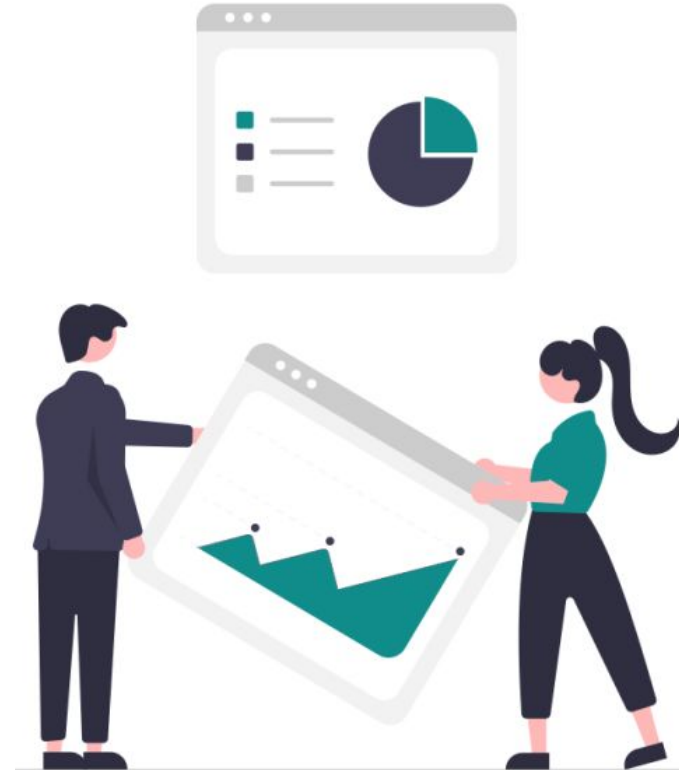


Connecting the supply chain ecosystem by providing real-time market insights on supply and demand, streamlining business operations that will help SMEs overcome their challenges and optimize performance.

Our goal is to provide **real-time market insights** and **visibility** by connecting the supply chain ecosystem.

What makes us better?

- Free marketplace
- Analytics dashboard
- Improved efficiency of interactions with partners
- Visibility through data
- Business partners have control over invoicing and services rendered on the platform



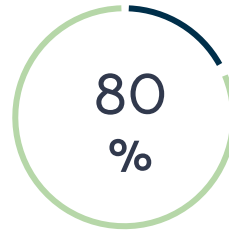
Target Audience

Small and medium sized enterprises involved in the supply chain industry



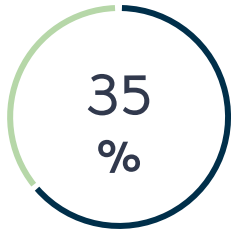
SMEs

SMEs contribution to the Canadian economy [3]



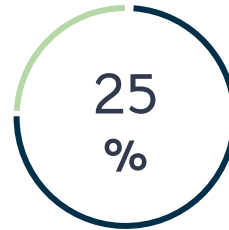
Industry before COVID

Of businesses thought it necessary to act more strategically about their supply chain managements [1]



SMEs in COVID

Of small businesses reported disruptions due to supply chain challenges [6]

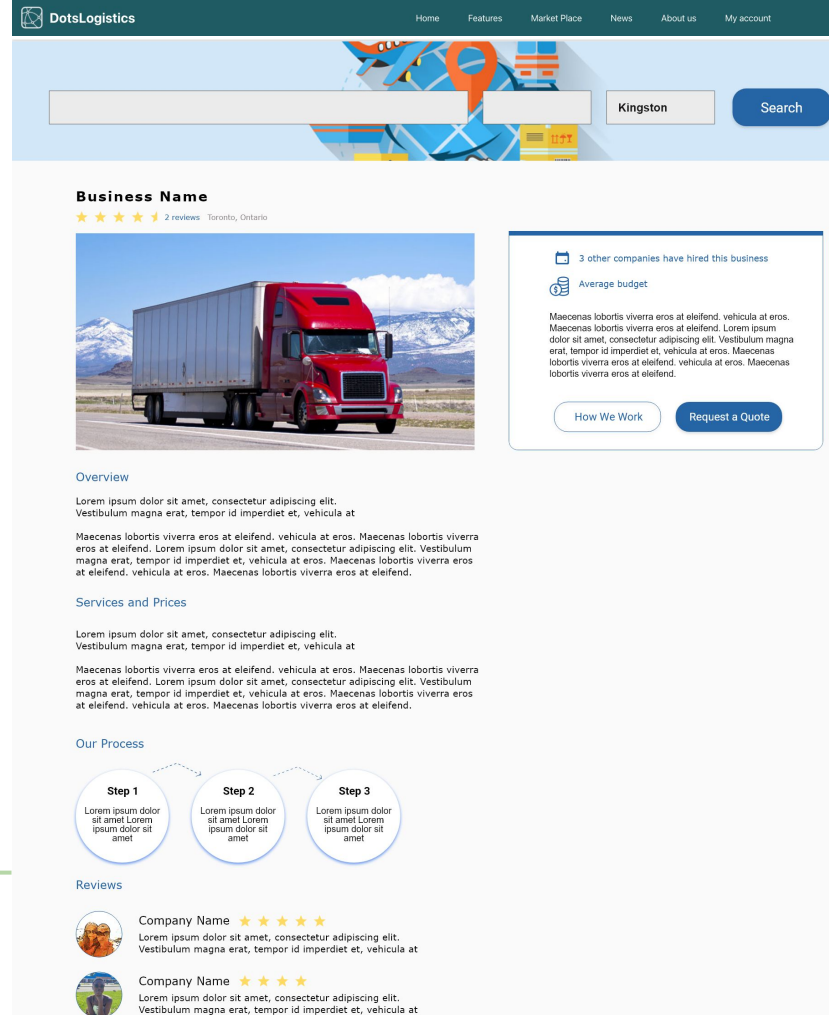


Supply Chain during COVID

Companies were slowing processing lines by 20-30% by March 2020 [2]

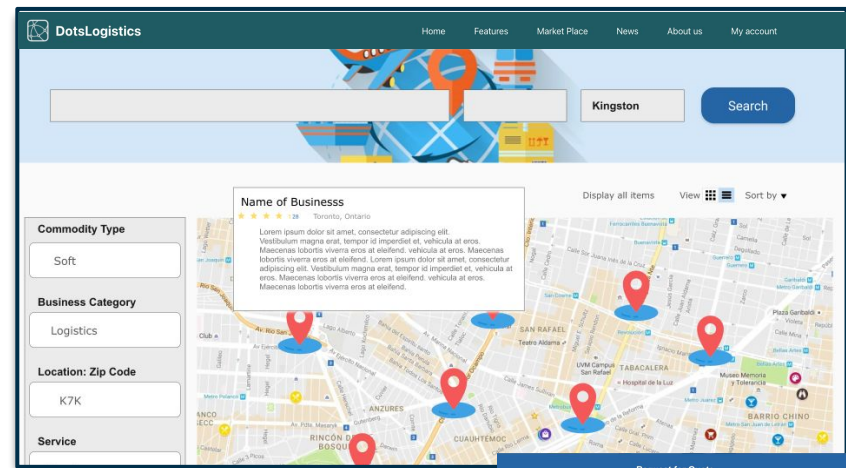
How it Works – Software

- Using React as front-end and client side framework, handling UI and getting data through requests to the Flask back-end
- Integration with Microsoft tools
 - Azure Artificial Intelligence and ML Studio
 - Azure App Services, Virtual Machines, and Database for PostgreSQL
 - Azure Power BI Embedded for analytics displays
- Data stored in a secure PostgreSQL DBMS
- Data can be manually inputted by customers or uploaded through a csv file with appropriate attributes
- Seamless integration of Azure with our Flask backend



How it Works – Marketplace

- Free marketplace for users to search for partners, users can filter by:
 - type of commodity
 - business category
 - initial location by ZIP code and radius
 - type of service
 - destination location
- Users can request a quote, send RFPs and messages to partners
- Email notifications to never miss an opportunity
- AI recommendation system to find the right partners easier



Message Business Partner

Veron Shippers Limited

Email

Phone Number

Date

Message

Send



Request for Quote

First Name: John, Last Name: Doe

Business Name: Veron Limited, Business Location: Toronto, ON

Phone Number: Veron Limited, City: Toronto, ON

Commodity Type: Veron Limited, City: Toronto, ON

First Address: John, Second Address: Doe

Commodity Name: John, Weight: Doe

Contract Duration: 2 Months

What other preliminary information can you provide. Please select below:

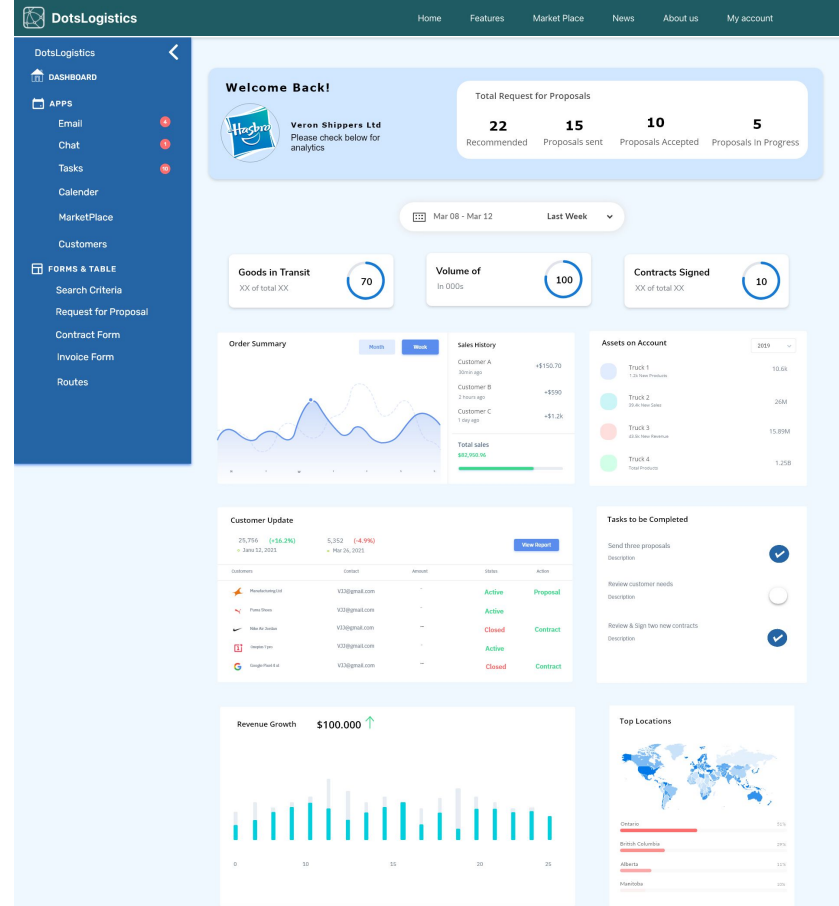
- ☒ Insurance Policy
- ☐ One-off Transaction
- ☐ Open Bid

Notes

Search Request For Quote

How it Works - AI

- Using Azure Artificial Intelligence, the platform will match and recommend partners to services available at competitive prices based on criteria and previous transactions.
- To perform market analysis and insights from aggregated data and transactions on DotsLogistics.
 - Using Azure Machine Learning Studio to deploy a regression model allowing analysis of augmented data and training of models using predictive analytics.
- Analytics dashboards detailing transactions and statistics for potential partners and customers own business using Azure Power BI Embedded



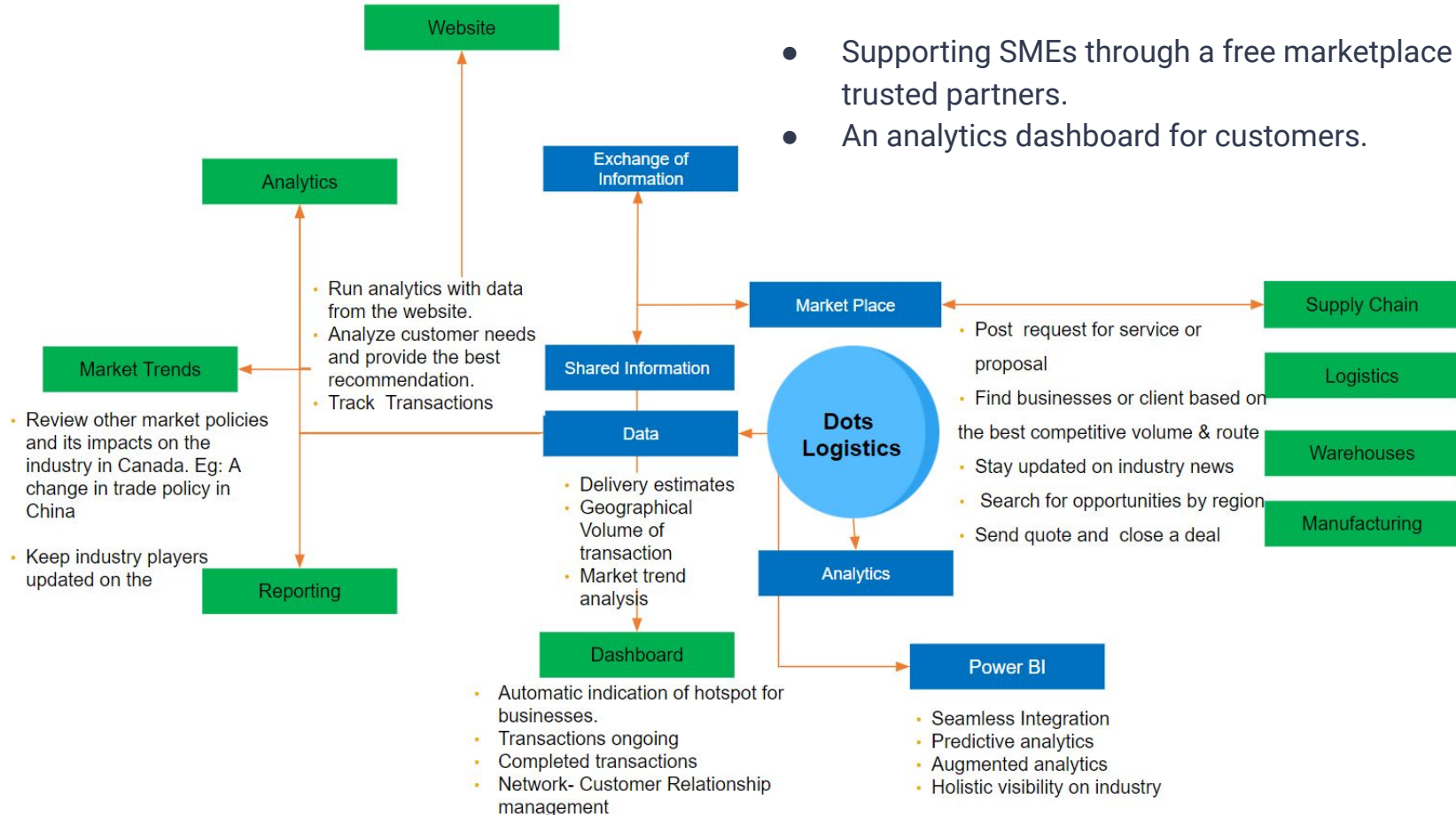
Bringing Businesses Together

91 Linton Street
Kingston, Ontario

Sitemap

Solution Architecture

- Supporting SMEs through a free marketplace to find trusted partners.
- An analytics dashboard for customers.



See Appendix 1 for better quality of this solution architecture diagram

Value Proposition

Redefined Collaboration

Increased collaboration between industry players to improve transparency in business processes.



Real-Time Market Insights

Leveraging aggregated data and data from Marketplace, the platform will offer real-time market insights

Increased visibility & Data Driven

Improved experiences in attracting new customers through automation and visible processes



Subscription-based Tiered Pricing

FREE

Bronze

Access to marketplace to find and connect with potential partners, request quotes, we take 3% commission on all transactions and 10% commission from discounts by promotions received.

1 month free trial then

\$57.99

/ mo

Silver

Bronze + access to company analytics, market insights, and business partner recommendations

1 year:

\$50 /mo

1st hour free then

\$74.99

/ hr

Gold

Bronze + our consulting service offered by industry professionals

Prepaid:

\$284.99 for **4h**

\$649.99 for **10h**

\$1199.99 for **20h**

Revenue Streams

- Carriers can find discounted shipper prices and promotions on our website. We receive 10% of the *total discount* from any promotions
- Subscription-based service
- Shippers gain a marketplace to advertise their capabilities and offer quotes, increasing their business
- Shippers can find trusted clients and are encouraged to include site-only promotions
- Subscription-based service

Carrier SMEs



Shippers

Customer Retention

- DotsLogistics is ideal for SMEs who constantly seek business partners
- Increased visibility and efficiency through analytics and recommendation system provides incentive to continue paying
- For one-time deals:
 - we earn profit through 10% of the discounts received
 - customers will remember us next time they need similar services

Increased efficiency in carrier-shipper communication compared to direct contact at a lower price allows DotsLogistics to maintain SCA.

Market Adoption Strategies



Email & Digital Marketing

Social media blog posts to attract shippers, email subscription service on market insights, advertisements on relevant sites



Free Marketplace Promotion

Leverage position as a low cost provider supporting SMEs to translate into incentive to invest in analytics and consulting services.



Good User Experience

A streamlined UX designed for efficiency by automatically saving information, using AI to power suggestions, and offering an application tour.

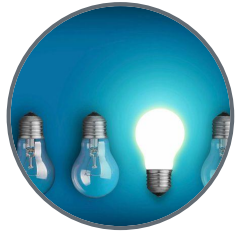
DotsLogistics Future

Now



The platform will provide a marketplace that matched shippers criteria with business needs and provide augmented market insights.

Future



The future of the platform will expand to predictive analytics on market opportunities based on augmented data that will be gathered on the platform after two years at least

Project Risk

Building relationships



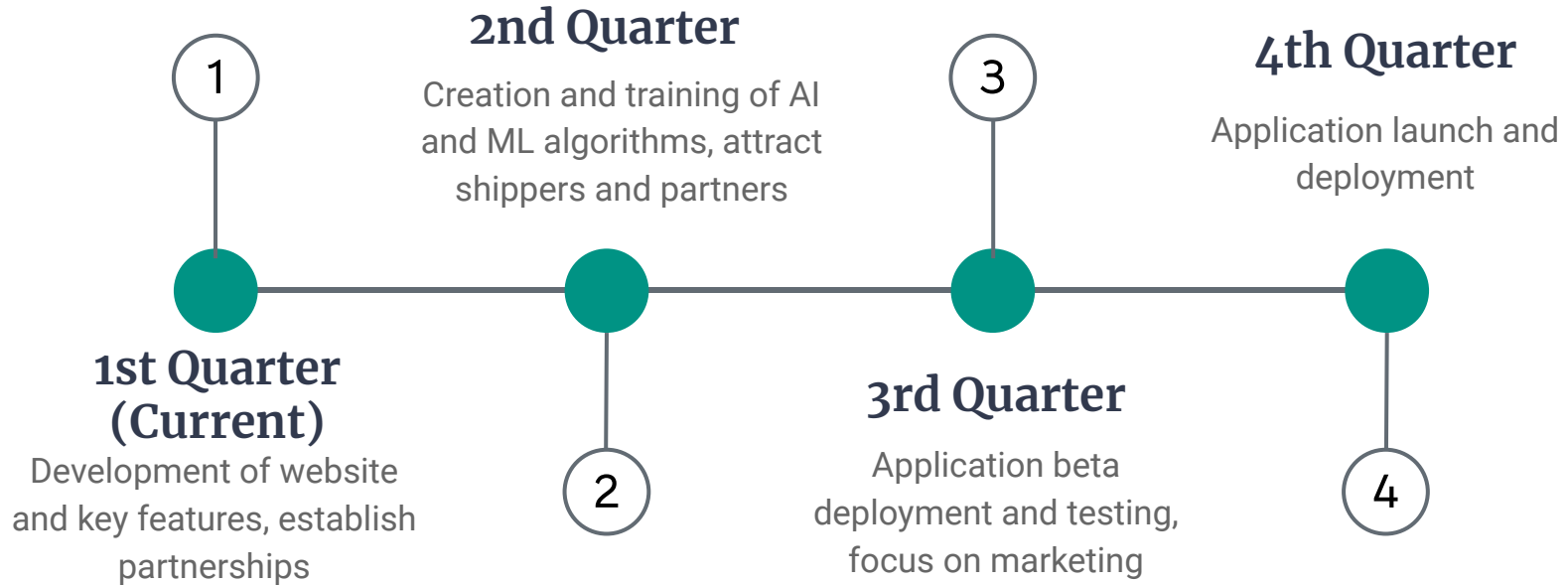
To encourage partners to begin and close business relationships, the platform will continue to engage partners via email, provide seamless support and a great user experience.

Customer Demands



Customers are demanding faster delivery, transparency and great customer service. We aim to address by providing efficient communication compared to directly contacting partners.

Milestones



Meet the Team



Julia Ju

18

University of Waterloo

julia.ju@uwaterloo.ca

647 901 9701

**BASc in Systems
Design Engineering |**
Passionate about
sustainable design



Julia L. Wang

20

University of Toronto

julialong.wang@mail.utoronto.ca

519-822-5388

**BASc in Engineering
Science - Machine
Intelligence |** Engineering
Business minor | Passionate
about innovation and design



Christine Ng

18

University of Waterloo

christine.ng@uwaterloo.ca

647 208 8231

**BASc in Systems Design
Engineering |** Passionate
about education and
people-centred
technological
advancement



Veronica Dogbegah

28

St Lawrence College

veronicaaku.dogbegah@sl.o.ca

343 333 8094

**User Experience & Design
Thinking |** Passionate about
People and Technology