

ETHAN LAM

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EDUCATION

University of Toronto

Sep. 2019 – April 2023

Honours Bachelor of Science in Computer Science and Mathematics - GPA: 3.89/4.0

Awards

- **Dean's List Scholar (2020, 2021):** Cumulative GPA of 3.50 or higher after completion of a year
- **University of Toronto Scholar's Award:** Merit based award for being one of the most outstanding students to apply
- **University of Waterloo CSMC Contest Medal:** Awarded by the University of Waterloo for getting the highest mark in my cohort

EXPERIENCE

HSBC Canada

September 2021 – December 2021

Full Stack Developer

Toronto, Ontario

- Helped architect Synthesis 2.0; a full-stack, user-facing, scalable, financial trading tool serving thousands
- Created automated data pipelines using **Apache Beam** and **Google Cloud Platform**, speeding up data transfer by 650%
- Used **React** to create a UI to dynamically query and display the data to users

University of Toronto

May 2021 – Present

Teaching Assistant

Mississauga, Ontario

- Taught fundamental computer science concepts (**OOP, Recursion, Unit Testing**) in classes averaging 50 students
- Used **Python** to develop an automarker for assignments, resulting in 200% marking efficiency increase

Mathematics and Computational Sciences Society

May 2021 – Present

Marketing Director

Mississauga, Ontario

- Analyzed social media analytics to determine which posts will perform better, increasing engagement by 170%

PROJECTS FOR MORE, CHECK OUT WWW.ETHANLAM.CA

Baobab | TypeScript, MongoDB, Mongoose, Nest.js (Node.js) Next.js (React.js)

- Built a web-based educational platform that prioritizes social networking and community engagement to facilitate learning
- Implemented **RESTful APIs** using **Nest.js** to facilitate creation of education and networking features
- Spearheaded the transfer from using in-memory data to using a **MongoDB** database
- Created a user-friendly design with **Figma**, increasing user engagement and efficiency by 20%
- Implemented pagination for displaying data, reducing load times by 30%, and eliminating the need for clicks
- Utilized **Agile Methodologies, Git, and Scrum Meetings** to work efficiently in a team of 8 developers

HoopUp | React Native, PostgreSQL, Socket.io

- Used **React Native** to create a native app that allows users to challenge each other to basketball games and see leaderboards of players in their area, gamifying the pick-up basketball experience
- Added live chat functionality using **Socket.io**, streamlining communication between users

Lectern | JavaScript, Solidity, Firebase, Node.js, Next.js, HTML, CSS, Blockchain

- Created a decentralized e-learning platform connecting tutors with students
- Wrote our own cryptocurrency for payment using **Blockchain** technologies, eliminating the need for localized payments
- Streamlined our login flow using **Next.js** and **Firebase**, reducing login clicks by 40%
- Leveraged **Chakra-UI** to create a responsive landing page and web app with tutoring session booking functionality

Track-19 (Hack The Case 2021 Winner) | JavaScript, Node.js, Next.js (React.js), HTML, CSS

- Built a privacy-first webapp to display Covid data and news relevant to users in an area, without tracking user locations
- Mocked up the design of our website on **Figma**, and used **Next.js, HTML, and CSS** to bring it to reality

Operation Guesser (PyJaC 2021 Winner) | Python, Pygame, React.js, HTML, CSS

- Wrote a **Dynamic Programming** algorithm in **Python** to generate infinitely many arithmetic problems for K-12 students
- Used **memoization** to increase efficiency of our algorithm by 2700%
- Created a website using **HTML** and **CSS** to showcase our code

TECHNICAL SKILLS

Languages: Python, Java, C, HTML/CSS, JavaScript/Typescript, SQL

Developer Tools: Git/Github, Google Cloud Platform, Postman, Docker, Jira, Figma

Technologies/Frameworks: React, Next, Node, Nest, Express, PostgreSQL, MongoDB, Neo4j