

# ETHAN LAM

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## EXPERIENCE

### Warner Music Group

July 2024 – Present

Software Engineer

Toronto, Ontario

- Architected core components of a new data platform using **Python**, enabling declarative, **PySpark**-based pipeline development and supporting the migration of **400+ legacy workflows**
- Migrated **Snowflake SQL** pipelines to **PySpark on Databricks**, cutting compute costs by **20%** and improving query times by **36%**
- Built a marketing data product via **Fivetran**, using **Star Schema** and **Medallion Architecture** for scalable analytics
- Led ingestion from 6 music platforms into a streaming data product, improving data throughput by **14%** for analysts
- Onboarded multiple senior engineers by writing documentation, pair programming, and guiding platform architecture sessions

### Wish

May 2022 – April 2023

Software Engineer Intern

Toronto, Ontario

- Created internal cron jobs in **Python** to monitor changes in compliance statuses of over **1,000,000** merchants daily
- Spearheaded AI title optimization project, increasing add-to-cart rate by **7%** and overall revenue by **2%** for **2.4 million** listings
- Pioneered creation of QOL tools in **Javascript** to automate merchant dispute processes, saving **10+** dev hours a month
- Developed tools to support a large-scale initiative to identify and ban over **194,000** dormant merchants safely
- Built new backend statuses for warnings to prevent duplicate work from admin team, saving **30+ hours** a month on moderation

### HSBC Canada

September 2021 – December 2021

Software Developer Intern

Toronto, Ontario

- Helped architect Synthesis 2.0 using **Scala**; 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 efficiently query and display over **10 thousand** rows of paginated data to users

### University of Toronto

May 2021 – Present

Teaching Assistant (CSC148, CSC207, CSC301, MAT102)

Mississauga, Ontario

- Taught design patterns, code architecture, Git, OOP, React, MongoDB, Neo4j, and PostGRES to classes averaging **50 students**
- Used **Python** to develop an automarker for assignments, resulting in **200%** marking efficiency increase

## EDUCATION

### University of Toronto | HBS in Computer Science and Mathematics - GPA: 3.92/4.0

2019 – 2024

Dean's List Scholar 2019-2024 | Student Leadership Award Recipient | University of Toronto Scholar's Award Recipient

## SELECTED PROJECTS FOR MORE, CHECK OUT [WWW.ETHANLAM.CA](http://WWW.ETHANLAM.CA)

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

- Implemented **RESTful APIs** using **Nest.js** to facilitate creation of education and networking features
- 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

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

- Created a decentralized e-learning platform connecting tutors with students
- 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%

## TECHNICAL SKILLS

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

**Frameworks/Libraries:** React, Node.js, Express, Nest.js, Tailwind, Chakra-UI Redux

**Data/Infrastructure:** PySpark, Databricks, Snowflake, PostgreSQL, MongoDB, Neo4j, Apache Beam

**Cloud/DevOps:** AWS (Lambda, S3, CloudWatch), Google Cloud Platform, Docker, Pulumi, GitHub Actions, Postman