# Mark Lu

## Full Stack Developer



# **Projects**

2025

# **Online Sports Betting Platform**

React, AWS, Postgres, MongoDB, gRPC, GraphQL, Playwright

- Developed a real-time odds scraping system via Playwright, retrieving live market data and game results, reducing costs by \$1,800/month compared to professional sportsbook data providers.
- Offers over **130**+ dynamic betting markets for every major sporting event, with real time data pulled from an API on GraphQL, hosted on a AWS EC2 server
- Engineered a database solution with Postgres and Prisma to store user account balances and transaction histories
- Integrated add-to-cart-function for betting selections using localStorage and APIs to maintain cart across page reloads
- •Deployed at https://cachecasino.vercel.app/

2024

## Data Scraping Filtering and Analysis Application

OpenAI API, Python, Beautiful Soup, HTML, CSS, Chart.js, Requests

- Engineered a scalable scraping pipeline to retrieve, analyze up to 82 game logs, and filter over 20+ statistical categories through a live external server for predictive modeling.
- · Designed an NLP-based filtering system for NBA statistics, allowing users to input natural language queries for customized data retrieval and analysis with OpenAI API
- Developed a free alternative to competitor platforms that charge \$20/month for the same functionality, increasing accessibility and user adoption.
- Deployed at <u>hoopgle.onrender.com/</u>

2024

#### **Food-Centric Social Media Platform**

Next.js, Tailwind CSS, Prisma, UploadThing, Clerk Auth

- Designed a full stack social media platform focused on exploring food content and helping people decide what to eat
- Implemented a GraphQL-optimized, Prisma-backed database to efficiently manage user data, posts, and interactions, integrating seamless file uploads via UploadThing
- Styled the platform with **Tailwind CSS** and **Shadcn**, ensuring a visually appealing and mobile responsive design.
- Optimized API integration and routing using **Next.js** server components, reducing data fetching latency by 40% through caching and revalidation strategies.
- Integrated Clerk authentication to enable secure, seamless user sign-up, login through Google, Tik Tok, and session management, enhancing account security and user experience.
- Deployed at <u>munchhhh.vercel.app/</u>



## Personal Info

## Address

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Mark Lu



## Education

2020-2024

#### **University of Wilfrid Laurier** Bachelor of Science Computer Science



## Skills

#### Languages

Python

JavaScript

HTML & CSS

iava

C

C++

#### **Frameworks**

**TypeScript** 

React/Redux

Next IS

Node IS

Apollo

Angular

#### Languages

PostgreSQL

GraphQL

Memcached

MongoDB

gRPC

Kubernetes

Terraform

**AWS** 

Heroku

Git