# Udy Ding

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### EDUCATION

# University of Waterloo

Bachelor of Computer Science, Honors

• GPA: 90%, 4x Dean's Honors List

• Relevant coursework: Data Structures, Algorithms, Computer Networks, Security, AI, Operating Systems

# Work Experience

# X (Twitter)

Incoming Backend Engineer Intern

• Building scalable and performant infrastructure for advertising analytics and auctioning. Working with distributed systems, streaming, and batch pipelines to drive revenue growth and optimize content personalization.

### Newfront

Software Engineer Intern

- Led migration of policy changes from Snowflake and BigQuery warehouses to PostgreSQL using Hightouch reverse ETL, denormalizing historical data to expedite retrieval times and improve traceability.
- Launched end-to-end enhanced workflow to support revision control and invoicing on draft policy changes. Directed design meetings, bug bashes, and roadmap planning as the **main engineering point-of-contact** of a team of 8.
- Refactored gateway API layer for invoicing to offload tasks from Apache Airflow scheduler. Reduced latency for one-off billing tasks from 5 minutes to sub-500ms.

### Athelas

Wish

Software Engineer Intern

Software Engineer Intern

- Designed a lightweight platelet imaging classifier with 92% accuracy utilizing the K-Nearest Neighbors (KNN) algorithm, alleviating peak-hour RAM usage from computer vision models by 11%.
- Deployed a distributed Celery task and validation process to ingest onboarding metrics of **40000**+ patients.
- Owned cross-team initiative to design and launch a care management platform and real-time notification system for patient vitals, saving 70% of nurse consultation time.

Toronto, ON

Waterloo, ON

May 2021 - Aug 2021

Jan 2022 - Apr 2022

Mountain View, CA

Sep 2022 - Dec 2022

- Migrated high-traffic payment workflows to Go microservice, increasing network throughput by **10x** and leveraging concurrent message channels to mitigate performance bottlenecks.
- Built a scalable testing harness to dynamically mock environments and abstract integration test logic, reducing code redundancy by 93% and saving engineers 4 hours/week.
- Deployed a Grafana dashboard serving Prometheus error metrics to proactively monitor a critical user endpoint.

# **OpenText**

Full Stack Software Developer Intern

- Implemented SRI hash-based validation to integrate major third-party CDNs into assets pipeline.
- Shipped localization of **12**+ file management and authentication features with white-labelling compatibility.

#### Projects

**UW Blueprint:** Developed a scalable booking platform and payments service for a non-profit serving **20000**+ users. Current product manager for a recruitment platform, leading a team of 8 developers and designers.

Foodpix: Cloud image repository and image stream parser using AWS S3. Leveraged Google Vision labelling to integrate reverse image search with instance-level recognition.

#### Skills

Languages: Python, C++, Go, TypeScript, JavaScript, SQL, HTML, CSS Frameworks: React, Next.js, Node.js, Express.js, NestJS, Flask Tools: PostgreSQL, MongoDB, AWS, GCP, CircleCI, BigQuery, Grafana, Prometheus, Redis, Jest, Linux, Bash

Sep 2020 - Apr 2025

May 2023 - Aug 2023

Jan 2024 - Apr 2024

New York, NY

San Francisco, CA