

# Yoonho Kim

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## EDUCATION

### University of Toronto

Bachelor of Arts in Engineering Science - Robotics Engineering, Minor in AI

Toronto, ON

Exp. May 2027

## EXPERIENCE

### Software Engineer Intern

Sept 2025 – Present

Auvik Networks Inc.

Toronto, ON

- Developed and maintained **Go-based microservices** processing millions of device records using **Kafka**, **PostgreSQL**, **Debezium CDC**, and **Kubernetes**
- Led large-scale backend migration refactoring **15K+ LOC**, replacing callback-driven iterators with optimized PostgreSQL batch queries, reducing query costs by **90%** and cutting service-level memory usage by **50%**
- Optimized complex PostgreSQL queries, **eliminating production OOM failures** and reducing execution latency by up to **96%**
- Designed thread-safe test datastore and reusable test utilities, reducing test runtime by **40%** across **30+** integration test suites
- Modernized legacy services by removing **9.8K+ lines** of deprecated code and migrating all integration tests to a unified PostgreSQL-backed persistence layer

### Software Engineer Intern

Sept 2024 – Aug 2025

SEW Eurodrive of Canada

Toronto, ON

- Built a real-time AGV communication system using **multi-threaded Python** and **UDP**, reducing pickup execution time by **50%**
- Implemented a 3D perception pipeline using **ifm3dpy**, **OpenCV**, and **PCL**, achieving **80%+** object detection accuracy in production environments
- Developed **Django REST APIs** to enable real-time AGV control, telemetry, and PLC integration
- Built a **React-based** fleet management dashboard, reducing manual monitoring effort by **40%** through real-time visualization of vehicle state, routing, and operational metrics

### Software Developer Intern

Feb 2025 – Apr 2025

Saige

Toronto, ON

- Built a full-stack automated property flyer generator using **Flask** and **React**, reducing manual flyer creation time by **70%**
- Implemented scalable **Flask REST APIs** backed by **PostgreSQL**, managing **thousands of property records**

### Software Research Intern

May 2023 – Aug 2023

University of Toronto - HFAS Laboratory

Toronto, ON

- Led development of a full-stack **React/Fastify/PostgreSQL** platform using **Prisma**, reducing participant workflow interactions by **50%**
- Accelerated developer onboarding by **50%** through a fully containerized **Docker Compose** environment
- Built an automated drowsiness detection pipeline using **Google Mediapipe** and **OpenCV**, saving **\$12K annually**

## PROJECTS

### TaskBolt | TypeScript, Fastify, PostgreSQL, Prisma, Redis, Docker, OAuth

- Built a task management platform supporting hierarchical subtasks, recurring schedules, and **Redis-backed reminders**
- Implemented bidirectional **Google Tasks API** synchronization with conflict resolution
- Integrated LLMs (Ollama, Groq, OpenAI) to convert natural language into structured tasks with **85%+ accuracy**

## TECHNICAL SKILLS

**Languages:** Python, C/C++, Golang, SQL (PostgreSQL, SQLite, MySQL), JavaScript/TypeScript, HTML/CSS

**Frameworks/Libraries:** React, Node.js, Fastify, Express.js, Django, Flask, TailwindCSS, pandas, NumPy, OpenCV, Matplotlib, PyTorch, ROS2

**Developer Tools:** Git, Docker, VS Code, PyCharm, Jupyter Notebooks