

# Gia Huy Thai

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## EDUCATION

### University of Toronto

*Honours Bachelor of Science in Applied Statistics, Minor in Computer Science*

Mississauga, ON

*September 2020 – June 2025*

## TECHNICAL SKILLS

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

**Frameworks:** React, Node.js, Flask, FastAPI, Express.js, React Native, Tensorflow, Pytorch

**Data Science:** Pandas, NumPy, Matplotlib, OpenCV, Scikit-learn, Statistical Analysis, Computer Vision

**Developer Tools:** Git, AWS, Google Cloud Platform, Docker, RESTful APIs, Excel, Word, Powerpoint

**Databases:** MongoDB, PostgreSQL, MySQL, JSON

## PROJECTS

**PlogGo** | *Python, Typescript, Express.js, Prisma, React, Axios, AWS, PostgreSQL, Docker Git* Jan 2025 – Present

- Architected PlogGo's React-based front end, integrated with a Flask back end via Axios, enhancing cross-platform functionality and responsiveness, resulting in a 40% increase in user engagement
- Engineered a PostgreSQL database solution for storing user account details, session data, and authentication credentials, resulting in a 30% improvement in query response times for user-related data retrieval
- Engineered a JWT authentication workflow with token blacklisting and protected route validation, proactively securing APIs against session hijacking and unauthorized access
- Trained a YOLOv11 model on the TACO dataset with PyTorch, achieving 90% precision in litter detection
- Developed a scalable WebSocket architecture with Socket.IO, reducing data sync latency by 40% and delivering seamless real-time plogging experiences
- Constructed a robust backend architecture on AWS using EC2, S3, and Lambda, improving the application's scalability to handle peak loads during high-traffic periods, with zero downtime

**FireSight** | *Python, JavaScript, HTML, CSS, Flask, PostgreSQL, XGBoost, GPT4All, Git* Feb 2025

- Developed FireSight at Genai Genesis 2025, a full-stack AI-powered wildfire risk assessment platform that processes satellite imagery and environmental data to predict wildfire risks accurately using XGBoost and Random Forest models
- Engineered a scalable backend system using Flask server to handle real-time data processing of satellite imagery and environmental parameters, reducing the risk assessment time by 60%
- Created an interactive web interface with dynamic visualization of risk assessment results, enabling users to make data-driven decisions for wildfire prevention and response
- Built a data preprocessing pipeline that handles large-scale geospatial datasets, improving XGBoost predictive model accuracy to 95% and cutting down GPT4All Large Language Model processing time by 50%

**EduBuddy** | *Python, Javascript, Node.js, Express.js, PyPDF2, Git* Sep 2024

- Orchestrated the creation of a full-stack application at HacktheHill 2024 that automatically extracted key assignment information from complex syllabus PDFs, saving students an average of 3 hours per semester normally spent on manual entry
- Configured OpenAI API integration to automate syllabus parsing, extracting key dates and tasks with 95% accuracy, reducing manual effort
- Pioneered a data ingestion pipeline using Node.js and Express, slashing syllabus processing time by 60%; extracted key data points via Python scripts run by child processes, enhancing throughput
- Automated syllabus analysis using Gemini LLM, discerning course codes and assignment details to categorize 500+ assignments and quizzes; slashed manual processing time by 60 minutes per syllabus, boosting student preparedness

## AWARDS AND ACKNOWLEDGEMENTS

Winner - [Virtual] United Nations & One Degree Cooler Best Climate Change & Sustainability AI Hack at Genai Genesis in March 2025

Winner - Second place at EWB Moral Code Hackathon in May 2024

FreeCodeCamp Machine Learning with Python Certification

Honour Roll Student of Mathematical and Computer Science Department in 2023-2024