

Patrick Molka

molka.patrick@gmail.com | 416-871-1525 | patrick-molka.netlify.app |  linkedin.com/in/patmolka |  github.com/PatrMo

Experience

Backend Developer, *DBAC-Gym Companion App* – Hamilton, ON

September 2024 – April 2025

- Worked in an 8-person SCRUM team to develop a full stack React Native app, scaled to accommodate 40,000+ users.
- Developed and documented RESTful APIs for secure data exchange and smooth client integration.
- Architected and implemented a scalable friend system in Firestore, through efficient data modelling, optimized query strategies, and real-time synchronization, ensuring low latency and robust performance.
- Dockerized the backend and deployed it to Google Kubernetes Engine (GKE) for scalable, containerized cloud hosting.

Software Developer - Contractor, *Broker's Playbook* – Toronto, ON

April 2025 - Present

- Developed an internal tool to parse hundreds of spreadsheets with varying formats into a standardized PostgreSQL database by training a word2vec NLP model that identifies and matches semantically related terms.
- Automated data extraction using Selenium and Pandas to collect and structure web data for database ingestion.
- Architected and deployed backend APIs using Python's FastAPI framework, hosted on AWS EC2 instances, and integrated with S3 buckets to host the NLP model and enable scalable storage and retrieval of image data.


Swim Coach, *Jack of Sports* – Toronto, ON

September 2021 – August 2024

- Designed and supervised customized lesson plans to boost swimmers' confidence, skills, and overall performance.
- Assessed swimmers' progress, providing strategic feedback to both students and staff for continuous improvement.

Projects

TrueDermis

 | February 2025

- Led a team of six interdisciplinary students in the research and development of a full-stack healthcare web app.
- Trained a machine learning model following a research paper using Tensorflows Keras and Google Colab.
- Implemented Docker to containerize the backend and simplify hosting and deployment to AWS using Elastic Beanstalk.
- Tools Used: Python, Google Colab, Tensorflow, Docker, Next.js, Typescript, Express.js, axios, Trello(Kanban).

Git Tissues

 | February 2025

- Wrote back-end logic for a project management tool powered by OpenAI at ConUHacks IX against 800 competitors.
- Built REST APIs with appropriate error handling and tested them with Postman for reliable bug-free performance.
- Wrote GraphQL queries with Apollo server for efficient data retrieval from GitHub's API and optimized performance.
- Tools Used: Typescript, Express.js, Postman, GraphQL, REST APIs, axios, node.js, OpenAI.

GateKeeper

 | December 2024

- Collaborated in a 4-person team to develop and maintain a local encrypted password app using a CI/CD pipeline.
- Created a Bash testing script and YAML workflow using GitHub Actions to automate testing and upload results.
- Wrote SQL queries to store and manage encrypted databases, ensuring data security, integrity, and efficient retrieval.
- Tools Used: C, OpenSSL, YAML, BASH, SQL, Github Actions.

Education

Mcmaster University, B.Eng Software Engineering Co-op. GPA: 3.6/4.0

Sept 2023 – May 2027

- **Awards:** Engineering Award of Excellence, Dean's Honour list.
- **Coursework:** Software Design, Object Oriented Programming, Data Structures and Algorithms.

Skills

Languages: Python, Java, HTML/CSS, JavaScript(React), C, SQL, Typescript, LaTeX, Bash, MATLAB, YAML.

Technologies/Frameworks: Google Cloud Platform, Amazon Web Services, Node.js, Linux, Kubernetes, Docker, Git, TensorFlow, PyTorch, Matplotlib, Next.js, Postman, GraphQL, Apollo.

Dev Tools: GitHub, VS Code, Canva, Figma, Eclipse, IntelliJ, PyCharm, Drawio, Trello, VIM.

Additional Interests: Hackathons, DevOps, Cloud Infrastructure, Reading, 3-D modeling, Piano, Rock Climbing.