

Pranav Kural

Passionate and driven developer with expertise in **Conversational** and **Generative AI**. Focus on performance, reliability, and security.

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Education

Honours Bachelor of Science (BSc)
in Computer Science

University of Ottawa

Ottawa, ON | May 2024

Honours: Dean's Honour List,
Received two merit scholarships,
graduated Cum Laude.

Computer Programming Diploma

Georgian College

Barrie, ON | Jan 2018

Honours: CGPA 4.0/4.0 - Dean's
Merit List.

Skills

Expert

- Python, Java, TypeScript (& JS)
- Generative & Conversational AI
- LangChain, Genkit, Voiceflow
- React, Next.js, Firebase

Intermediate

- Machine Learning (CV, NLP)
- TensorFlow, Scikit-Learn
- Pandas, Matplotlib, Numpy
- SQL, Firestore, Pinecone
- Data Analysis and Visualization
- DevOps, CI/CD, GitHub Actions
- Web Development, UI/UX Design

Knowledgeable

- Google Gemini API + Vertex AI
- Azure AI Services, LUIS
- AWS SageMaker, Bedrock
- Scrum & Agile Development

Soft Skills

- Excellent Communication Skills
- Collaborative & Adaptable
- Fast Learner & Hard Worker
- Good Listener & Critical Thinker
- Self-motivated & Compassionate

Achievements and More

- Team won Morgan Stanley Code-To-Give 2021 Hackathon.
- Frequent contributor to open source projects like LangChain.
- Fluent: English, Hindi, Punjabi.

Portfolio: <https://pkural.ca/projects>

Work Experience



BMO - Bank of Montreal

Barrie, ON, Canada

IT Ops Analyst

Jan 2018 – Aug 2021

IT Ops Analyst (Co-op)

Sep 2017 – Dec 2017

- Focused on **incident management** for company-wide high severity issues.
- Acted as IT incident coordinator for high impact **production issues**.
- Very **high-pressure, detail-oriented & skill-intensive** environment.
- Created solutions to improve **departmental productivity and efficiency**.
- Was hired full-time based on performance during co-op.



Georgian College

Barrie, ON, Canada

Web Developer

Jan 2017 – Dec 2017

Web Developer (Co-op)

Sep 2016 – Dec 2016

- Was employed at Center of Advance Research & Innovation.
- Handled client onboarding, requirements gathering, UI strategy formation.
- Prepared wireframes, functional prototype & website theme development.
- Was re-hired based on performance during co-op.

Projects

QvikChat

Open Source, Conversational AI, RAG, LangChain, Firebase Genkit

A powerful **open source** framework to build and deploy secure, performant, and reliable production-ready chat services with advance features, quickly & efficiently.

- Built-in support for advanced features like **chat history, response caching, endpoint authentication, and Retrieval Augmented Generation (RAG)**.
- Supports 30+ **data sources, embedding models, and vector stores** through LangChain for building powerful context-aware chat services.
- Provides built-in **safety guardrails** to mitigate LLM hallucination, deter prompt injection attacks, detect PII leakage, and perform content filtering.
- Included support for enabling advance techniques like **query expansion and response evaluation**, as well as, tracking usage and performance metrics.
- Website: <https://qvikchat.pkural.ca> | NPM: [@oconva/qvikchat](https://www.npmjs.com/package/@oconva/qvikchat)

Intento

Open Source, Conversational AI, Intent Recognition, TypeScript

A simple-to-use open source framework to build and deploy **intent recognition services** powered by **Large Language Models (LLM)**.

- Aims to make it easier, accessible, and faster for developers to empower their apps with **conversational AI**. For instance, supporting voice or text commands.
- Provides the underlying architecture and data strategy to building a **robust and reliable intent recognition** service without compromise on security.
- Eliminates the need for constantly training a supervised learning or a Natural Language Understanding (NLU) model, by using **state-of-the-art LLM models** with a low-latency query processing architecture.
- Website: <https://intento.pkural.ca> | NPM: [@oconva/intento](https://www.npmjs.com/package/@oconva/intento)

AI Student Advisor

Conversational AI, RAG, Pinecone, OpenAI, AWS

A specialized conversational AI app that enables students, faculty members, and others to search for information specific to an institution.

- Architected the AI component, from query contextualization using chat history and information retrieval to response generation and session management.
- Implemented the **Retrieval Augmented Generation (RAG)** pipeline, from data preprocessing to embeddings generation and vector store retrieval.