

# SIDDHANTH DUGGAL

+1 7783255927 | [sidkduggal@gmail.com](mailto:sidkduggal@gmail.com) | [sidkd.vercel.app](https://sidkd.vercel.app) | [linkedin.com/in/sidkduggal](https://linkedin.com/in/sidkduggal) | [github.com/skduggal](https://github.com/skduggal)

## EDUCATION

### University of British Columbia

Sep. 2022 – May 2027

*Bachelor of Science in Statistics and Biochemistry (Combined Major in Science)*

Vancouver, BC

- Coursework: Systematic Software Design, Machine Learning, Data Structures & Algorithms, Statistical Modelling.

## TECHNICAL SKILLS

**Languages:** Python · R · JavaScript/TypeScript · HTML/CSS · Java · LaTeX · SQL

**ML & Data Eng:** PyTorch (vision & NLP) · TensorFlow/Keras · Scikit-Learn · LangChain (RAG) · LangFuse · Prompt Eng.

**Software & DevOps:** Pantheon (AI agent orchestration) · Temporal (workflow engine) · Node.js + Express · React & Astro · n8n/Windmill (workflow automation) · Git & GitHub Actions

## WORK EXPERIENCE

### Zamp

May 2025 – Aug 2025

*Artificial Intelligence Intern*

- Working at a Sequoia-backed agentic AI startup building autonomous workflows for finance operations at enterprises like Uber, DoorDash and Wio Bank.
- Spearheaded development on an AP automation agent that extracted invoice data and executed 2-way PO matching using document and decision agents - cutting AP processing costs by 60% for enterprise users.
- Built a transaction-screening AI agent on Pantheon/Temporal to match flagged payments to high-risk entities (~5K alerts/day), achieving 95% true-match accuracy and 60%+ cost savings for a bank client.
- Developed and deployed Morpheus and Trinity: internal AI InfoSec agents using semantic search + RAG (OpenAI embeddings + Qdrant) on 60+ documents to answer compliance queries in Slack and complete 200+ InfoSec assessments in Google Sheets, reducing manual effort by 70%.

### iKites.AI

Jul 2024 – Dec 2024

*Applied Machine Learning Research Intern*

- Worked with Prof. Amit Sethi (IIT Bombay & University of Illinois at Chicago) on reimplementing his paper on classifying H&E stained breast tissue images into four categories using deep learning.
- Fine-tuned the Inception-v3 CNN to achieve 93% accuracy for non-cancerous vs. malignant tissues, surpassing the previous benchmark of 83% (Araújo et al.)
- Responsible for annotating and identifying Drusen segmentations on OCT retinal images to generate data labels.

### Ernst & Young (EY)

May 2023 – Aug 2023

*Transaction Diligence Intern*

- Performed financial due diligence on a U.S.-based chemical manufacturer, analyzing key financial metrics and industry trends to support M&A decisions.
- Researched market positioning and financial performance of competitors in surfactants and ethylene derivatives, identifying valuation benchmarks and industry risks.

## PROJECTS

### Vibe-Rater Sentiment Analysis | [GitHub](#)

Python, Pytorch, Transformers, VADER, Scikit-Learn, Pandas

- Developed a sentiment analysis pipeline for Instagram comments enabling real-time sentiment classification for social media analytics.
- Implemented VADER sentiment analysis to compute individual comment scores ("vibe ratings") from 1 -10.
- Fine-tuned a pre-trained BERT model using a dataset of ~200,000 labeled comments from Reddit and Twitter to achieve a 87% classification accuracy rate in generating an aggregate "vibe" for each comment.

### RAG-powered AI Resume Assistant | [GitHub](#)

TypeScript/Javascript, React, Astro, LangChain, and Qdrant

- Developed an [interactive AI resume assistant chat application](#) capable of answering questions about my education, work experience, and technical skills.
- Implemented Retrieval-Augmented Generation (RAG) architecture using Qdrant and LangChain to ground AI responses in my personal resume and project data.

### Emotion Detection Using Deep Learning | [GitHub](#)

Python, Tensorflow, Keras, Scikit-Learn, OpenCV, Dlib

- Developed a deep learning approach to detect five distinct emotions from facial expressions in images, utilizing Multi-Layer Perceptrons, Convolutional Neural Networks, and transfer learning with VGG.
- Achieved 76.9% accuracy using transfer learning – surpassing human accuracy of  $65 \pm 5\%$  on the fer2013 dataset.