# Jakub Krulik

3 Toronto, ON

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 $\Box$  +1(613)-630-0444

### **EDUCATION**

Athabasca University

Athabasca, AB

BSc in Computing and Information Systems

Expected Graduation: June 2025

GPA: 3.74/4.00

Average: 88%

Earl Haig Secondary School

Toronto, ON

September 2017 - June 2020

**SKILLS** 

o Languages: Java, Python, R, C (UNIX), BASH, HTML, CSS, HTTP

o Data Science: PL/SQL, PostgreSQL, MySQL, SQLite, Pandas, NumPy, Matplotlib, PyPlot

o Mathematics: Markov Models, Linear Optimization, Simplex, Calculus, Statistics, Regression, ANOVA.

o Bioinformatics: BioPython, GFF3, Fasta, GenBank, Gene Island Prediction, Sequence Alignment.

o Tools: Jupyter, MS Word, MS Excel, MS Outlook, Onedrive, Latex, Notion.

### **EXPERIENCE**

### **Bioinformatics Research Volunteer**

Remote

Athabasca University

April 2023 - Present

 Performed literature review on ring-cleaving oxygenases/hydroxylases identifying candidate enzymes for hydrocarbon degradation in pseudomonas spp.

o Utilized sequence alignment methods in python to search for candidate enzymes in reference genomes.

Layout Editor Remote

Athabasca University Journal of Integrated Studies

November 2022 - Present

o Formatted galleys in Word and HTML, implementing innovative functions to enhance journal editing.

#### Bioinformatics Research Assistant

Remote

Athabasca University

March 2021 - July 2021

- o Analysed genomic data using Python and online APIs to identify genes involved in bioremediation.
- o Compared 3 reference genomes to 10+ phylogenetically closest genomes from the NCBI GenBank database.

### Traditional Gardener

Toronto, ON

Accounts Assistant/Website Manager

August 2020 - August 2022

- Created a company website and wrote/populated it with content.
- Maintained and organized documents effectively reducing discrepancies due to missing documents by 80%.
- Followed SOPs to complete reconciliation tasks and identify accounting errors.

### **PROJECTS**

### Healthcare Database System

May 2023

o Designed/implemented a detailed healthcare DB with over 30 tables using PostgreSQL and Microsoft Visio. Reduced errors/anomalies due to functional dependencies by 80%.

#### Java Blog System

August 2022

o Developed a file-based blog system using Java Enterprise Edition (Jakarta) reducing user-input requirements by 70%.

## LEADERSHIP & EXTRACURRICULARS

#### Freelance Writer

• Commissioned 100+ articles for clients within the span of 4 months.