# Siddarth Krishnan . Jarvis Consulting

I'm a recent computer science graduate passionate about machine learning and advances in the crypto space like decentralized finance. My excitement stems from seeing how we can identify patterns in big data sets using deep learning and different neural network architectures. In addition, I've been paying close attention to the proliferation of decentralized protocols in blockchain technology and how creative developers have gamified finance with Web3. There are many challenges I find interesting here like incentivizing liquidity providers and boostrapping tokens with emissions. I would enjoy working in a data engineering or science role and learning where I can apply my math aptitude and pattern recognition skills.

## Skills

**Proficient:** Java, Linux/Bash, RDBMS/SQL, Agile/Scrum, Microsoft Office

**Competent:** Python, C++, Smalltalk, Docker, Javascript

**Familiar:** PyTorch, React, Vue, MATLAB, Rust

## Jarvis Projects

Project source code: https://github.com/jarviscanada/jarvis_data_eng_SiddarthKrishnan

**Cluster Monitor** [GitHub]: Set up monitoring scripts for a linux cluster to track usage statistics for several nodes. These nodes are connected locally and the script our periodically populates a table with each node's current usage information. This project helped get acquainted with the linux filesystem hierarchy. It was apparent that virutal memory comprises process info, memory, CPU scheduling and other statistics. Logging memory statistics was a good exercise in understanding file paritions, which manage the storage space on the OS.

**Core Java Apps** [GitHub]:

- Twitter App: Currently working on CRUD app for Twitter to learn APIs. Using HTTP and json within java.
- JDBC App: The client side JDBC package java.sql was used to access RDBMS to abstract CRUD operations. The data access object (DAO) pattern was followed in our code to execute SQL statements. The DAO pattern along with java.sql api were used in implementation to perfrom operations on an existing database of customers and orders. Our DAO classes hide how objects are persisted in the database. I also explored the repository pattern and its advantages in this assignment.
- Grep App: Implemented the bash grep function in a java application. This app made use of java regex classes and file handling to test its usage for text files. The testing was done by appending lines with matching regex patterns to a single file. Furthermore, the class files and dependencies were packaged in an uber jar using maven and its shade plugin. This ensured that the JVM would find classpath class files and dependencies in our pom file. The project was finally dockerized.

**Springboot App** [GitHub]: Not Started

**Python Data Analytics** [GitHub]: Not Started

**Hadoop** [GitHub]: Not Started

**Spark** [GitHub]: Not Started

**Cloud/DevOps** [GitHub]: Not Started

## Highlighted Projects

**Machine learning object recognition assignment**: Goal was creating machine learning model (neural network architecture) to identify objects by a class label. We wanted to understand why deep learning was preferable for computer vision tasks.Used transfer learning approach, adapting a prefined CNN for our dataset. We had a hard time achieving classification lower than standard benchmarks for the R-CNN models. We could have focused more on preprocessing data and adjusting the network through drop layers. We also should have read more literature on networks for image classification as we were unable to correct overfitting and accuracy issues in the given time.

## Professional Experiences

**Junior Software Developer, Jarvis (2021-present)**: Gaining experiecne with many development tools and programming paradigms. Implemented a linux cluster monitoring agent to track node usage on a local network.

**Cast Member, Cineplex (2021-present)**: Guest services role. Worked in concession area serving food and preparing orders. Checked vaccine certificates for all theatre entrants. Closing and opening duties.

## Education

**Ryerson University (2018-2021)**, Bachelor of Science, Computer Science - GPA: 3.3/4

## Miscellaneous

- Receational sports
- Defi research
- Trading