

# VIVIENNE CHOW

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## EDUCATION

École de Technologie Supérieure | B.S.E Software Engineering (GPA: 3.54)

Expected April, 2021

## EXPERIENCE

### Cloud Developer

#### ConovaAI (Startup)

May 2020 - Present

- Architected and implemented an ETL pipeline to fetch data from a web scraper API (Diffbot) using AWS Glue, Athena, Lambda, S3, and Neptune, allowing researchers to collaborate seamlessly and securely on data analysis.
- Developed a Chrome extension using ReactJS and AWS Amplify using an API connection integrated with GraphQL and AWS AppSync.
- Deployed and maintained a data pipeline using events from AWS Pinpoint to stream through Kinesis and to feed the recommendation model of Personalize allowing real-time curated campaign solutions to the users depending on their queries and what they clicked.
- Architected and built streaming application for event streaming, data aggregation, and record linkage for data from different sources using AWS EventBridge, Elastic MapReduce, Kinesis Analytics, Apache Beam, and Apache Flink.

### Computer Vision and Machine Learning Intern

#### Genetec

Fall 2019

- Optimized a people detector and a vehicle classifier that resulted in increased frames per second and mean accuracy precision.
- Collaborated with researchers to apply image processing techniques, meta-learning, computer vision algorithms, and new machine learning frameworks within the proof of concept.
- Created an analytical framework to analyze and correlate all the available performance data using Python, Pandas, Matplotlib, and Intel OpenVino.

### Software Developer, Intern

#### Caisse de dépôt et placement du Québec

Fall 2018

- Developed different functionalities for an ASP.NET application using C# and Java.
- Implemented an automated testing pipeline with Azure DevOps.
- Integrated Single Sign-On with OAuth for O365 using Azure Active Directory.

## PROJECTS

**Personal Website:** [viivienn.github.io/portfolio](https://viivienn.github.io/portfolio) (for additional information and projects)

### SafeTrained Android App (available in PlayStore)

- Being aware of the ongoing staffing and time constraints during the Covid19 pandemic, I collaborated with McGill health students to develop an Android app that would enhance learning for assistants of the orderlies and new hires of long-term care facilities.
- Developed a simple and intuitive user interface with multiple functionalities such as bilingual option, quiz, checklist, glossary, and information modules.
- Programmed in Kotlin with Android Studio, following best practices allowing data persistence, and iOS version is programmed in React Native.

### Cloud Punch! (ImplementAI Hackathon)

- Developed an app that applies Open Pose to simultaneously track the movements of two players, from two separate video feeds who can physically interact in a virtual space and play a boxing game, even if they are in separate locations.
- Local clients use Flask to broadcast each player's video feeds on the local area network via a multi-threaded video capture class. Pose estimation server hosted on Google Colab estimating joint landmark vector for each player via a modified OpenPose model.

### Social Network Website

- Full-stack social network application deployed on Heroku using Node.js, Express, React, Redux, and MongoDB along with ES6+. Also include Express Stateless JWT authentication React Hooks and tested with Redux Chrome extension.
- Allows users to sign up, create profile, comment, like and post

## SKILLS

**Programming Languages:** C++, Java, JavaScript, Kotlin, Python, HTML/CSS, SQL, GraphQL

**Tools:** Git, Docker, Android Studio, Amazon Web Services

**Web:** Rest API, ReactJS/React Native, NodeJS, MongoDB, Redux, Flask, AngularJS

**AI/ML:** Pytorch, Tensorflow, Matlab, OpenCV, Spark

## EXTRACURRICULAR ACTIVITIES

### Délégation des compétitions en informatique de l'ÉTS

- Member of the university's competitive delegation and participated in multiple hackathons such as CSGames, CoveoBlitz, ImplementAI, JDIS, HackFest, LHGames (2nd Place)

### Les Ingénieuses

- Volunteering member of the university's women engineering club and volunteered for different events

## INTERESTS

Hackathons | Beach Volleyball | Rock Climbing | Baking | Piano | Video Games