VIVIEN CHOW

Software Engineering Student

Learning enthusiast adept at using Python, Java, JavaScript and other programming languages to produce clean code. Well-organized and collaborative team player with strong communication and analytical abilities.

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EDUCATION

Bachelor of Software Engineering (GPA 3.5)
École de Technologie Supérieure
09/2017 – Present *Montreal, Canada*

Diploma of College Studies
Marianopolis College
2011 – 2014 *Montreal, Canada*

WORK EXPERIENCE

Computer Vision and Machine Learning Intern
Genetec
09/2019 – 12/2019 *Montreal, Canada*

- Succeeded in optimizing the existing people detector and a vehicle classifier that resulted with improved frames per second and mean accuracy precision.
- Collaborated with the people detection team and held meetings every two weeks to share new findings, progress and suggestions.
- Researched and applied image processing techniques, meta-learning, computer vision algorithms and new machine learning frameworks within proof of concept.
- Set a benchmark system to compare results of different experiments on CPU using OpenVino.

Software Developer Intern
Caisse de dépôt et placement du Québec
09/2018 – 12/2018 *Montreal, Canada*

- Programmed in C# and other languages in the Application Solutions for Private Equity Funds team.
- Implemented automated QA for the financial software package according to the strategy prepared by the software designer assigned to the team.
- Integrated Single Sign-On for Automation of CA Workload Automation Services.
- Automated tests with Azure Devops.

EXTRACURRICULAR ACTIVITIES

Délégation des compétitions en informatique de l'ÉTS
Member of the university's competitive delegation and participated in multiple hackathons (CSGames, CoveoBlitz, ImplementAI, JDIS, HackFest, LHGames (2nd Place))

SKILLS

Python | Java | C# | C++ | JavaScript | Git | AWS | SQL | HTML | CSS | Docker | Node.js | React | Typescript | Linux | Mxnet | OpenCV | TensorFlow | Pytorch | Matlab | OpenVino | Angular | Ganache | Solidity | Hibernate | MongoDB | .NET

PERSONAL PROJECTS

Cloud Punch! (ImplementAI Hackathon)

- Developed an app which applies Open Pose to simultaneously track the movements of two players, from two separate video feeds. The players can physically interact in a virtual space and play a boxing game, even if they are in separate locations!
- Local clients uses Flask to broadcast each player's video feeds on the local area network via a multi-threaded video capture class.
- Use ngrok port forwarding to make each video feed public accessible
- Pose estimation server hosted on Google Colab accesses the video feeds. Server estimates joint landmark vector for each player via a modified Open Pose model.

Hovercraft

- Generated NACA aerodynamic profiles on MATLAB.
- Modeled and designed parts of the hovercraft on SolidWorks.
- Programmed ATmega32 micro-controllers for motor and servomotor control.
- Configured the ESP8255 for Wifi communication between micro-controllers.

Neural Style Transfer Application

- Implemented with Pytorch and deployed using Flask and Amazon's Elastic Beanstalk
- Used convolutional neural networks to transfer the style of one image to the content of another image

Generative Adversarial Networks for HD scaling

- Developed a GAN to render high resolution images from lower resolution while applying state of the art algorithms.

INTERESTS

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