

Vincent (Chenzhun) Huang

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EDUCATION

- **Carnegie Mellon University** Pittsburgh, Pennsylvania
Masters of Science in Intelligent Information Systems; GPA: 3.92
*Courses: **Machine Learning, Deep Learning, Search Engines, Machine Learning for Large Dataset, Natural Language Processing, Directed Study in NLP and Robotics***
Sept 2022 - Dec 2023
- **McGill University** Montreal, Quebec
Bachelor in Honours Computer Science; GPA: 3.88 (First Class Honours)
Scholarships: Sarvard and Lee's Scholarship, Bourses d'excellence en sciences de l'informatique
*Courses: **Computer Vision, Reinforcement Learning, Parallel Computing, Algorithms and Data Structures, Operating Systems, Applied Machine Learning, Calculus, Linear Algebra, Discrete Mathematics, Music&Audio Computing, Digital Signal Processing***
Sept 2017 - May 2022

SKILLS SUMMARY

- **Languages:** Python, JavaScript, TypeScript, C, C++, Java, Ocaml, MatLab
- **Tools:** Git, Docker, Node, Express, SQL, PyTorch, Tensorflow, Django, Pytorch-Lightning, Tornado

PUBLICATIONS

- **Generating Good GitHub Repository Descriptions: A Comparison of Manual and Automated Approaches:**
(Hellman, Jazlyn; Jang, Eunbee; Treude, Christoph; Huang, Chenzhun; Guo, Jin L.C)

EXPERIENCE

- **Unity Technologies** Montreal, Quebec
Machine Learning Intern
May 2022 - Aug 2022
 - **Knowledge Distillation:** Modified model architecture supported by experiments which, combined with knowledge distillation, achieving comparable performance to the original model proposed by Oreshkin et al with only 1/20 of size
 - **FPS Improvements:** Supported 5 times as many frames a second as the original model by improving model inference time
 - **ML Engineering:** Adapted Knowledge Distillation algorithm to motion synthesis tasks
- **Unity Technologies** Montreal, Quebec
Software Developer Intern
May 2021 - Aug 2021
 - **Download Progressions:** Provided user-facing, event-oriented download progression report for Unity packages
 - **Installation:** Unified installing and caching pipeline for packages from different sources
 - **Testing:** Established decentralized testing framework for the whole team while maintaining 100% code coverage
- **SSENSE** Montreal, Quebec
Full Stack Developer Intern
May 2020 - Aug 2020
 - **Automation:** Streamlined 10% of the merchandise upload, cutting inter-season product transition by 3 hours daily
 - **Access Control List:** Improved permission level management by integrating ACL(Access Control List) with Google OAuth
 - **Continuous Monitoring:** Implemented continuous monitoring into Jenkins and generated uptime service level objectives
- **Nuance Automotive** Montreal, Quebec
Backend Developer Intern
Sept 2019 - Apr 2020
 - **Internal Tools:** Automated internal namespace manager and significantly simplified the boarding process for employees
 - **Error Tracer:** Designed, implemented and presented an automated error tracer scaled for 9 deployment environments

PROJECTS

- **User Level Thread:** A Simplified user thread scheduler implemented with C that supports spawn, join, and timeout operations
- **Markerless Guitar Finger Tracking (Python, Pytorch):** A system using Stacked Hourglass Network to retrieve guitar fingering from camera feed. Apart from the existing dataset from the Internet, I created a collection of pictures of guitar fret with fingers on various positions
- **Error Tracer (Python, Tornado):** A software which collects and analyzes internal server error and sends daily reports to the developers. It is connected to the ELK (ElasticSearch, Logstash, Kibanna) stack to collect, filter and analyze the logs
- **effusion.ca (Python, Django):** Website for my A Cappella group which is built with Django and React and deployed using nginx and Digital Ocean. It is still actively maintained by me
- **JUCE Synth(C++, JUCE):** A synthesizer built with JUCE, which supports the basic MIDI operations and Open Sound Control with sliders on the UI