

ERIC VUONG

☎ 514-561-1337 | ✉ eric.vuong@mail.mcgill.ca | 🌐 ericvuong.me | 🌐 ericvuong1 | 🌐 eric-vuong-se

TECHNICAL SKILLS

Programming Languages : Java, JavaScript, Python, HTML/CSS.

Web & Analytics: Node.js, React/Redux, Angular, Spring, GraphQL, MongoDB, Tensorflow/Keras, OpenCV.

Technologies: Android, Database, Unity3D, iOS, Git, TravisCI, Jenkins, LaTeX, Microprocessors, and others.

IDEs & Editors: Vim, Visual Studio Code, IntelliJ IDEA, Eclipse, Android Studio, PyCharm, XCode, Sublime Text.

Operating Systems: macOS, Ubuntu, Windows.

Interests: Web Applications, Cinematography, Machine Learning, Stock Market.

EDUCATION

McGill University Bachelor of Engineering (Honors Electrical) *Software Engineering Minor*

Montreal, QC | *Sep. 2014 – May 2019*

- GPA: **3.9/4.0**
- Member of Golden Key International Honor Society (top 15% of the faculty)
- Internship Program - *Completed **6 full-time** work terms in both hardware and software engineering*
- Dean's Honor List (2015)

Vanier College Diploma of Collegial Studies (Honors Pure and Applied Science)

Montreal, QC | *Sep. 2012 – May 2014*

- Dean's Honor List (Cumulative Average: **91%**)

EMPLOYMENT

Morgan Stanley | Software Developer Intern | *Data Warehouse Team*

Montreal, QC | *September. 2018 – December 2018 (4 months)*

- Implemented a new visualization of the firm's infrastructure dependency using **GraphQL**.
- Successfully deployed the feature into production on the fifth week and performing continuous software development.
- Improved **GraphQL** query efficiency from **15s to less than 500 ms** by implementing a **batch loading cache** mechanism.
- Selected Top 5 among 14 interns to showcase my infrastructure dependency project to all team and divisional executives.
- **Technologies used**: GraphQL, Spring, Angular TypeScript, SQL, JDBC, Jenkins, Apache Zookeeper.

Ericsson | Software Developer Intern | *Innovation Team*

Montreal, QC | *May. 2018 – August 2018 (4 months)*

- Full-stack development of a web app to monitor cities' environment.
- Created APIs for easier manipulations of device configurations based on their settings.
- Worked on the front-end for a profile management of an environment monitoring system.
- **Technologies Used**: Node, Express, React / Redux, Docker and RESTful APIs.

CAE | Electrical Designer | *Hardware Team*

Montreal, QC | *May. 2016 – August 2017 (16 months)*

- Designed flight simulators' computing complex and visual system wiring diagrams for manufacturing.
- Redesigned legacy visual systems' **computer clusters** to support the new simulators' computing facilities.
- Supported engineer through the design process and resolved hardware issues with **JIRA, PLM & CAD** tools.

PROJECTS

Foodera Honors Thesis – McGill University

January 2019 – Present

- Designed an image recognition of food portion sizes for mobile devices using augmented-reality (ARCore) and computer vision (OpenCV, Keras) under the supervision of Prof. Giannacopoulos.
- Trained a convolutional neural network to recognize various food using Tensorflow/Keras.

Binance Trading Bot Lead Developer

Apr. 2018 – December 2018

- Developed a real-time customized and interactive cryptocurrency screener using **React, Node, Express** and **Tensorflow.js**.
- Applied trading strategies using **functional programming** in **JavaScript** that yielded **37% profit** in the span of 3 weeks by modelling and implementing various indicators (StochRSI, VWAP, MACD, Boll, etc.) across all possible tickers.

Microprocessor IoT Project Android & Cloud Developer

Jan. 2018 – Apr. 2018

- Created an **Android app** to process accelerometer data and microphone audio with **Bluetooth Low Energy**.
- Used **Plotly** to generate an online plot of the **sensor data to cloud** available directly on the android app and on the web.
- Transcribed audio via the **Google Cloud Speech API** using 16 kHz audio encoded at 2 bytes per sample.

[McGameJam 2018 Winners] Yakuza Taxman Game Developer

Mar. 2018

- Received Honorable mention by the judges at a McGameJam2018 competition to create an original game from scratch.
- Implemented a **dynamic difficulty adjustment algorithm** to procedurally generate levels with scaling difficulty in **C#**.

Link: <https://13gume.itch.io/yakuza-taxman>

CanIEatThis Backend Android Developer

Jan. 2018

- Integrated **IBM Watson's machine learning visual recognition** to compute dietary limitation in Android Studio.
- Manipulated JSON data with a nutritional **REST API** to extract the most accurate results based on medical data.

Devpost Link: <https://devpost.com/software/canieatthis>

McGill Software Management System Android Developer

Sep. 2017 – Dec. 2017

- Created a multi-platform university research lab management system for mobile, desktop and web.
- Developed the **mobile** platform with **MVC architectural pattern** in **Android Studio** in **Java**.
- Designed test cases and strategies with **JUnit** covering **over 90%**, which facilitated the **integration testing**.

[1st Place] Autonomous Robot Competition Project Manager & Java Developer

Jan. 2015 – Apr. 2015

- Designed an **autonomous robot** with ultrasonic and light sensors that navigates a map and launches balls at targets.
- Led a team of six against 18 other undergraduate teams in the Faculty of Engineering.
- Implemented **obstacle avoidance, odometry, moving average**, and **differential filtering algorithms** in **Java**

AWARDS & SCHOLARSHIPS

Golden Key Society International Honor Society	2018	Mr. & Mrs. T.R. McLagan Scholarship	2015
CAE Canadian Coast Guard Accomplishment	2017	McGill University Dean's Honor List	2015
CAE US Army Fixed Wing Accomplishment	2016	1 st place McGill Design Principles & Methods	2015
J.B. Woodyatt Scholarship	2015	Vanier College Dean's Honor List	2012-2014