Samuël Hénault Lefebvre

Language : french, english

SamLefebvre   SamuelLefebvre   https://Lefebvre.dev

Formation

- **Bachelor's degrees in information technology engineering**   Expected 2020
  École de technologie supérieure (ÉTS)

- **Diploma of College Studies in Computer science technology**   2007
  Cégep de Saint-Jérôme

Professional experience

Researcher associate,   **2019**
Full Stack analyst-programmer

Study *Brain Health Now*   (internship 4 mois)
neuro (Montreal Neurological Institute and Hospital)
McGill University (Applied R&D Technology and Funding
Solutions Inc.), Montreal

Online platform of psychometric tests

- **Front-end**
  - React 16.8.6, Redux, Jest
- **Back-end**
  - Python 3.7, Flask, pytest
  - Docker, traefik, Google Compute Engine, MySQL
- **Gestion**
  - Trello, client issues
  - Jira, agile development, kanban boards
  - GitHub, code management

Analyst-Programmer   **2017, 2018**
Comerco, Laval   (internship 4 months and 6 months)

(Protection plans)

Protection plan management application

- **Programmer .Net C#**
  - Multi-user application with WPF
  - Entity Framework 6, Telerik
  - VOIP integration
  - Automatic data validation with email report
  - TFS, Unit test, continuous integration
  - Scrum, Agile
- **Database**
  - MS SQL Server 2016

Analyst-programmer   **2010-2013**
Laura Canada, Laval

(Retail sale, women's clothing and accessories)

Financial, transactional, HR, mobile applications

- **Programmer .Net C#**
  - Automatic data entry
  - Mobile application
- **Database**
  - MS SQL Server 2008 R2
- **Documentation**
  - Technical report, Performance report
  - User manual
- **Report**
  - Report optimization using Stored procedure with ratio of 3:1 to 80:1
  - Multiple dimension report

Analyst-Programmer   **2007-2009**
Aptika, Sainte-Adèle

(Event management,ID card printer)

- **Programmer**
  - Application for management of sports event management with real-time web results
- **Technical support**
- **Web developper**
  - Rebuild custom CMS for online sells
  - SEO management
  - Visualisation on mobile platform

Known technologies

Web	Application	Software suite
React, VueJS	Tensorflow, PyTorch	Visual Studio & Code
CSS (Sass, Stylus), JS (ES9)	C#, Javascript, Python, Java	Git, TFS
SQL Server, MySQL, PostgreSQL	NumPy, Matlab, Octave	OpenCV

List of interests

- Machine learning
- Data analysis, Big Data
- Image analysis, Computer Vision
- Parallel computing, distributed computing
- Internet of Things
- Blockchain architecture
- Audio analysis and speech processing
- Natural language processing
- Brain computer interface
- Digital signal processing
- File compression algorithm
- MPEG standard in audio and video

Online formation

- **Machine Learning**
  Coursera, Andrew Ng
- **Tensorflow for Deep Learning with Python**
  Udemy
- **Computer visionwith OpenCV in Python & Machine Learning**
  Udemy
- **The Complete React Web Developer Course (with Redux)**
  Udemy

Student club – SynapsÉTS

SynapsÉTS is a student club in Brain computer interface.

Project concerned: Design and manufacture of an artificial prosthesis (robotic arm), controlled using electromyogram (muscular electrical impulses). Development of the software platform for signal analysis and motor control.

- Interfacing multiple technologies, from Bluetooth to Python, and Python to Arduino
- Management of team, schedule and tasks
- Team training on programming language
- Using a public source code manager (GitHub)
- Analyze data using machine learning to increase the accuracy of movements

D.C.S project graduation

- **Custom color QR code reader, writer**
  - o Project before public usage of QR code
  - o Computer vision, with custom encoded message
  - o Recognition of skewed and noised image
  - o Custom algorithm