Resume

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# Education

* UdeM Msc Computer Science (AI and Optimization, at thesis writing phase, on hiatus)  
  2018-…
* Mcgill Bsc Mathematics and Computer Science  
  2018
* Polytechnique BEng Electrical Engineering (2 years, not completed, GPA: 3.4/4)  
  2015–2017

# Work Experience

* ADOPT/IBS:Senior Product Engineer, CORE team (infrastructure, backend, optimization) developer  
  2021
  + Improve and develop new features for the backend written in Scheme and an associated reactive object engine (incremental computation). This backend is mostly a layer for data consistency management that wraps around the companies’ solvers.
  + Implement new functionalities pertaining to relationships between objects and update propagation between them in above mentionned data model
  + Upgrade, maintain and develop new REST functionalities (Python and Flask)
  + Push new releases through custom pipeline (sh scripts, Makefiles, Docker, k8s + helm)
  + Maintain infrastructure (Kubernetes cluster managed through Helm releases) on in clusters both on local hardware (VMware) and remote (gcloud)
* GIRO:C++ developer for transport scheduling module team  
  2017
  + Develop new features for transport visualization
  + Update codebase to new standards (e.g. C++14 and STL)
  + Implement database migration tool (essentially symmetric serializers and deserializers)
  + Maintain legacy C++98
* Ubisoft:data science intern for the User Research Lab  
  2016
  + Write SQL (HiveQL) queries to present quantitative data to developer team
  + Produce dashboards for the developer teams and management teams
  + Address efficiency issues in big data environment (order of petabytes) with schema on read scheme.
  + Maintain the ETL pipeline (airflow), which includes monitoring the temporary tables in the associated directed acyclic graph and debugging failed queries.
* Resarch Institute McGill University Health Center:research assistant  
  2015
  + Implement statistical analysis tools relevant to given data in R
  + Implement tool for automated periodic reporting of key metrics
  + Evaluate and recommend modifications concerning the data logging interface for clinicians and its impact on data analysis quality
* Santropol Roulant:bike coop program manager  
  2014
  + Migrate ad-hoc sales system to point of sale system (POS) and computerized inventory management
  + Organize workshops in bike repair
  + Repair and maintain coop’s bike fleet
  + Schedule and manage monthly meetings of the volunteer team

# Tools/skills

* Experience in production environment in the following languages Python, C++, C, Scheme (R5RS)
* Advanced Linux user, sysadmin skills. Experience working with Debian, REHL, and Arch based distributions.
* Working knowledge of C for embedded systems; projects pursued while an Electrical Engineering student. Includes participating in the Poly eRacing project as a member of the team focused on the battery management board (also involved PCB development.)
* Hobby level knowledge of ML family languages, Common Lisp, Emacs Lisp and Haskell
* Workflow tools used: (n)vim, emacs (DOOM evil-mode), perl regexps, bash/zsh, tmux, ssh, git, LaTeX
* Strong knowledge of mathematical foundations of numerical optimization
* Clarity, conciseness and correctness minded, conditionned through a strong pure mathematics education
* Mother tongue level in French and English, intermediate Portuguese reading.

# Misc/interests

* Writer of short stories and poetry in both English and French
* Interest in theory of literature (stylistics, hermeneutics, prosody)
* Favourite poets: Ted Berrigan, Alice Notley, John Berryman, Louise Gück
* Music theory and classical guitar

Strong tendency to be interested opening black boxes and learning about different paradigms (e.g. modern OS developments, compiler technologies, interesting languages with different paradigms (e.g. all the lisps, FP (ML family), concurrency focused ones (Go, Erlang)