

SIA REZAEI

Toronto, ON
(C) +1 604 506 7525 | sia@siarez.com | [GitHub](#) | [LinkedIn](#)

SKILLS

Languages: Python, C/C++, Javascript, C#, PHP
ML libs: Tensorflow, PyTorch, Scipy, OpenCV, NLTK
OS: Linux, Embedded Linux, OSX, Windows, WinCE 5
ML: RNN, CNN, VAE, GCN, Variational inference
Product: Product-market fit research, Product planning

Math: Bayesian stats, Graphical models, Inferential stats
Software Dev: Test driven development, Documentation
Misc: Cluster computing, ZeroMQ, GIT, Travis CI
Web: Node.js, Redis, AWS, AngularJs, HTML, CSS
Business: Planning, Financial projections, Pitch decks, IP

EXPERIENCE

Deep Learning and Computer Vision Research Engineer | TRI/UHN | Toronto ON

Jan 2019-Present

- I leverage computer vision for diagnosis, recovery, and care of patients with neurological disorders and older adults
- I develop facial action recognition models for video data and performed very careful analysis of their performance
- I built a data processing and model testing pipeline that enables fast iteration and reproducibility of our experiments
- Initiated an ongoing Statistics learning workshop to promote thoughtful usage of ML techniques
- Mentoring junior staff and graduate researcher in their ML projects

Deep Learning Engineer | Jargon.ai | New York NY

JULY 2018-Jan 2019

- Developed a deep audio-visual model for denoising and isolating voices of multiple speakers during video calls
- Performed data analysis, and created a sanitization/preparation data pipeline conducive to rapid experimentation
- Developed methodical training and experiment procedures to correctly track changes in the models and data

AI Fellow | Insight Data Science | New York NY

FEB 2018-May 2018

- I developed a visual action recognition model to gauge engagement during video calls from facial actions
- Set up a data pipeline to ingest videos and extract facial landmarks to recognize nodding gestures in PyTorch
 - Ported the trained model to TensorFlow.js (fma Deeplearn.js) to run in the [browser](#) in near real-time

Founder | Serene Audio Inc. | Vancouver BC

APR 2010-FEB 2017 - at intervals

- Built and lead the team and developed strategic partnerships with investors, media, manufacturers, advisors
- Did comprehensive financial planning for Serene Audio to achieve short and long-term goals
- Built a long-term product plan by doing thorough research of market trends and consumer habits and values
- Designed and took to production [DSP amplifiers](#) for active high-fidelity loudspeakers
- Did acoustical, mechanical, and manufacturing process design and engineering for our [loudspeakers](#)

Data analyst/software engineer | Lazymeal | Vancouver BC

APR 2014-MAR 2015

- Performed data analysis to predict the ROI before signing new partners, resulting in 3x increase in revenue
- Directed the efforts of our sales team to predict churn and increase LTV
- Developed an internal facing tool to create & manage guerrilla marketing campaigns, and analyze their performance

Fullstack developer | Verlico Inc | Vancouver BC

SEP 2013-MAR 2014

Developed the backend (Node.js, Express, Redis) and the frontend (AngularJS, HTML, CSS) of Verlico.com, a fashion social networking platform. Helped accelerate the launch of their MVP on AWS.

Engineer/Software architect | Hipparcos Tech. | Vancouver BC

SEP 2010-MAY 2011

- Developed a distributed software on embedded Linux in C and Python for a [cloud connected home robot](#) using ZMQ
- Updated Linux display and touchscreen drivers for the embedded hardware (Beagleboard) used in the robot
- Helped design and build the robots which consisted of an ARM9 SBC and a multitude of actuators and sensors

SIDE PROJECTS

- Mentoring data science professionals at [DL workshops](#)
- Diligently pursuing research on how non-equilibrium dynamics can be a new foray to advance AI research
- Committer to and reviewer of [OpenMined/PySyft](#)

EDUCATION + COURSES

Bachelor of Applied Science in Systems Engineering from Simon Fraser University, Vancouver, BC

- Probabilistic Graphical Models by Daphne Koller
- Algorithmic Information Dynamics by Hector Zenil
- Freq. Statistics with R specialization by M Rundel
- Machine Learning course by Andrew Ng
- Bayesian Statistics course by Herbert Lee
- Neural Networks course by Geoff Hinton