# Sia Rezaei

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## SKILLS

**Languages:** C/C++, Python, Javascript, C#,  PHP
**ML libs**: Tensorflow, PyTorch, SciPy, NLTK, Matlab, R
**OS:** Linux, Embedded Linux, OSX,  Windows, WinCE 5
**ML:** RNN, CNN, PGM, regression, clustering, PCA
**Vision:** Fast image acquisition and processing with FPGA
**Product:** Product-market fit research, Product planning

**Math:** Bayesian stat, graphical models, inferential stat
**Software Dev:** Test driven development, documentation
**Misc:** ZeroMQ, OpenCV, GIT, Jira
**Web:** Node.js, Redis, AWS, AngularJs, HTML, CSS
**Hardware:** Electronics schematic and layout design
**Business:** Planning, Financial projections, Pitch decks, IP

## EXPERIENCE

### Fellow | Insight Data Science | New York NY
FEB 2018-Present

I developed a visual action recognition model to gauge engagement during video chat call for Jargon.ai
- Set up a data pipeline to ingest videos and extract facial landmarks
- Trained models to recognize the movement pattern of the head during nodding from a small dataset in PyTorch
- Ported the trained model to Deeplearn.js to run in the browser

### 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, etc
- Did Strategic and 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 loudspeakers
- Did acoustical, mechanical, and production process design and engineering for our loudspeakers

### Data analyst/software engineer | Lazymeal | Vancouver BC
APR 2014-MAR 2015

Developed and implemented comprehensive analytics tools and methods for:
- Gathered data and usage habits of customers to drive development of Lazymeal's targeted marketing.
- 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 a platform to create, manage, and analyze the performance of guerrilla marketing campaigns

### Fullstack developer | Verlico Inc | Vancouver BC
SEP 2013-MAR 2014

Developed the backend (Node.js, Express, Redis, Elasticsearch ) and the frontend (AngularJS, HTML, CSS) of Verlico.com, a fashion social networking platform. Also worked on deployment of the platform on AWS.

### Engineer/Software architect | Hipparcos Tech. | Vancouver BC
SEP 2010-MAY 2011

- Developed a distributed computing software on embedded Linux in C and Python for a cloud connected home robot
- Updated Linux display and touchscreen drivers for the embedded hardware used in this project
- The robot's hardware consisted of a ARM9 single board computer and a multitude of motor, actuators and sensors
- Worked extensively with ZMQ, OpenCV, Clutter graphic library, and OpenGL.

### Embedded software eng. | Serene Controls | Vancouver BC
MAY 2009-JAN 2010

- Developed software in C++ for an embedded, LAN connected, touchscreen media controller on Win CE 5.0
- Developed a lightweight graphics and physics engine from the ground up, in order to achieve good graphics performance (i.e. smooth animations) on a modest platform (ARM9 - 400MHz without a GPU)
- Updated touchscreen drivers for a smoother performance & better UX

## PROJECTS + HOBBIES
- Committer to and reviewer of OpenMined/PySyft, an encrypted deep learning library
- Duplicate question detector in Tensorflow for Quora
- Uncertainty backpropagation (in progress)
- Soccer playing robots for the RoboCup competition
- Reading and implementing interesting AI papers

## EDUCATION + COURSES
Bachelor of Applied Science in Systems Engineering from Simon Fraser University, Vancouver, BC

- Probabilistic Graphical Models by Daphne Koller
- Statistics with R specialization by M Rundel
- Bayesian Statistics course by Herbert Lee
- Machine Learning course by Andrew Ng
- Neural Networks course by Geoff Hinton