

Accomplished technologist and Machine Learning subject matter expert with ten years of experience that includes six years building complex ML algorithms for Amazon's retail and music organizations. Deep experience in web development, distributed systems design, recommendation systems, and Natural Language Processing. Experience includes public speaking, private training, consulting/advisory, and academic publications.

EXPERIENCE

Machine Learning Engineer, GPSE Consulting LLC - Seattle

Feb 2018 - Present

Founded a consultancy to provide Machine Learning expertise including training, strategy advisory, and due diligence.

- Conducted two ML workshops for engineering teams at Samsao.
- Provided technical due diligence for a large investment fund (subcontract).
- Tech Lead/Senior ML Engineer on assignment with a top management consultancy responsible for architecture design and ML strategy for a recommendation engine (subcontract).

Machine Learning Engineer II, Amazon Music - San Francisco

Nov 2015 - Aug 2017

Contributed to development of the Amazon Music service with a focus on music similarity metrics, signal processing, recommendation systems, music classification, and deep learning.

- Developed a generative model in TensorFlow used for automated user playlist creation.
- Fixed genre misclassification issues for 100K+ tracks.
- Advised multiple external teams as an ML subject matter expert.

Software Development Engineer II, Amazon.com - Seattle

Sept 2011 - Nov 2015

Hired to Search & Discovery group focused on information extraction, ML, data mining, and distributed systems.

- Key contributor to a faceted information extraction algorithm that was [patented](#) and attributed to significant sales.
- Published three academic papers at the Amazon Machine Learning conference.
- Delivered 10+ internal tech presentations on various topics (AWS, ML, crowdsourcing) and presented at Amazon Machine Learning Conference and Carnegie Mellon Language Technologies Institute.
- Managed a full-time SDE direct report and two interns.
- Onboarded/mentored five engineers and participated in 130+ candidate interviews.
- Organized a Hackday for organization of 300+ engineers in three consecutive years.

Research Assistant, DialRC, Carnegie Mellon University - Pittsburgh

Sept 2009 – July 2011

- Enhanced and maintained the *Let's Go Bus Information System*, a dialogue system for Pittsburgh's bus schedule. Trained speech recognition systems.
- Launched and organized monthly lunch series on crowdsourcing for language technologies.
- Produced 1M+ crowdsourced speech utterances transcriptions used as training data for the Spoken Dialogue Challenge.

Research Assistant, West-DGI Lab, École Polytechnique de Montréal - Montréal

May 2007 - May 2009

- Built a machine learning classifier for temporal annotations.
- Contributed to the French adaptation of the ISO-TimeML standard.

EDUCATION

MS, Language Technology, Carnegie Mellon University - Pittsburgh

2011

B.Eng, Computer Engineering, École Polytechnique de Montréal - Montréal

2009

TECHNICAL SKILLS

Languages: Python, Java, Bash

Libraries: pandas, TensorFlow, sklearn

Tools: jupyter/ipython, Spark, Hadoop, Docker

AWS: S3, EC2, EMR, IAM, SQS, SNS, DynamoDB, Lambda, Personalize, SageMaker

Spoken Language: French (Mother tongue), English (Fluent), Spanish (Proficient)

SELECTED PUBLICATIONS

[Book] M. Eskenazi, G.-A. Levow, H. Meng, G. Parent, and D. Suendermann. *Crowdsourcing for Speech Processing: Applications to Data Collection, Transcription and Assessment*. Wiley, Hoboken, USA, May 2013.

Parent, G. & Eskenazi, M. (2010). *Toward better crowdsourced transcription: transcription of a year of the Let's Go Bus information System data*. In Proceedings of the IEEE Workshop on Speech and Language Technology 2010, Berkeley, USA.

Black, A. W., Langner, B., Parent, G. & Eskenazi, M. (2010). *Spoken Dialog Challenge 2010*. In Proceedings of the IEEE Workshop on Speech and Language Technology 2010, Berkeley, USA.

Parent, G. & Eskenazi, M. (2010). *Lexical Entrainment of Real Users in the Let's Go Spoken Dialog System*. In Proceedings of Interspeech 2010, Tokyo, Japan.

Parent, G. & Eskenazi, M. (2010). *Clustering Dictionary Definitions using Amazon Mechanical Turk*. In Proceedings of the NAACL/HLT workshop on Creating Speech and Language Data with Amazon's Mechanical Turk, Los Angeles, USA.

PROGRAM COMMITTEES

Program Committee Member, Session on Advanced Crowdsourcing for Speech Processing @ Interspeech (2015)

Program Committee Member, North American Association Computational Linguistic (NAACL) / Human Language Technology (HLT) workshop on Creating Speech and Language Data With Amazon's Mechanical Turk, Los Angeles (2010)

GRANTS & SCHOLARSHIPS

Fonds Québécois de la Recherche sur la Nature et les Technologies (FQRNT), Master Research Scholarship (2010)

Natural Sciences and Engineering Research Council of Canada (NSERC/CRSNG), PGS Master Scholarship (2009)

Natural Sciences and Engineering Research Council of Canada, Undergraduate Research Awards (2007-2008)

De Vinci Distinction of École Polytechnique de Montréal (2009)

INTERESTS

Sailing: sailed a 37 ft Cherubini Hunter sailboat up and down the coast of British Columbia and from Seattle to SF

Scuba Diving: PADI Assistant Instructor, 250+ logged dives, pro #255058

Mechanics: 1994 GS500, 1982 Magna V45, 2009 R1200GS, 2013 F800GS

Traveling: 30+ countries and still counting

Music: guitar, diatonic accordion and karaoke aficionado