

Gabriel Parent

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http://gabrielpa.rent

Experience

Amazon Music, San Francisco

Nov. 2015 - Present

Machine Learning Engineer II

- Area of work: music similarity metrics, signal processing, recommendation systems, music classification, deep learning
- Developed a new music similarity metric with positive impact on recommendation and station sequencing
- Developed a generative model for automated playlist creation
- Fixed genre misclassification issues for 100K+ tracks
- Host of the weekly machine learning office hours for the Music organization
- Acted as a machine learning consultant for several external teams

Amazon.com, Seattle

Sept. 2011 - Nov. 2015

Software Development Engineer II

- Area of work: information extraction, machine learning, data mining, distributed systems
- Tech Lead on a team of 3 focused on improving the search experience
- Published 3 academic papers at the Amazon Machine Learning conference
- Over 10 tech talks on various topics such as AWS, machine learning, and crowdsourcing
- Managed 1 full-time SDE direct report and two interns
- Onboarded/mentored 5 engineers, interviewed 130+ candidates
- Main contributor to a faceted search algorithm with attributed yearly sale of over \$500MM
- Reviewed code and designs for several teams in my organization
- Organized a Hackday for 3 consecutive years for my organization of 300+ engineers

DialRC, Carnegie Mellon University, Pittsburgh

Sept. 2009 – July 2011

Research assistant

- Developed the *CMU tellus* dialogue system to handle a subset of the 311 calls to the City of Pittsburgh
- Maintain the *Let's Go Bus Information System*, a dialogue system for bus schedule in the City of Pittsburgh
- Organized monthly lunches on crowdsourcing for language technologies
- Transcribed over 1M speech utterances with crowdsourcing, used as training data for the Spoken Dialogue Challenge

West-DGI Lab, École Polytechnique de Montréal

May 2007 - May 2009

Research assistant

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

Cascades Inc., Kingsey-Falls

May 2004 - Sept. 2005

IT technician

- Helped manage IT for a paper plant with 100+ employees

Technical Knowledge and Skills

Programming languages: python (9 years), Java (6 years), C/C++ (14 years)

Libraries: Cython, numpy, pandas, seaborn, TensorFlow, sklearn

Tools: jupyter/ipython, Spark/Hadoop, Docker

AWS: S3, EC2, EMR, SQS, Redshift, ECS and proficiency with many more. 5 years of experience designing distributed systems

Web development: significant experience (6 years, 10+ apps) building web apps. Django, jQuery, Bootstrap and more.

Other interests: cryptocurrencies (ethereum/bitcoin), linear algebra, machine learning for astronomy

Education

Master in Language Technology <i>Carnegie Mellon University, GPA 4.03/4.30</i>	August 2011
Bachelor of Engineering, Computer Engineering <i>École Polytechnique de Montréal, GPA 3.93/4.00</i>	May 2009

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 Committee

- Member on the program committee for the Special Session on Advanced Crowdsourcing for Speech Processing and Beyond @ Interspeech, 2015.
- Member on the program committee for the 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 and Honors

Fonds Québécois de la Recherche sur la Nature et les Technologies. Master Research Scholarship	2010
Natural Sciences and Engineering Research Council of Canada, PGS Master Scholarship	2009
CAE/Fraser scholarship	2009
Fairfax Financial Holdings Ltd. scholarship	2006, 2007 and 2008
Natural Sciences and Engineering Research Council of Canada, Undergraduate Research Awards	2007 and 2008
De Vinci Distinction of École Polytechnique de Montréal <i>Based on the excellence of technical realizations as well as on social involvement</i>	2009
Dean's List of Excellence of École Polytechnique de Montréal	2005 - 2009

Spoken and Written Languages

French (Mother tongue) English (Fluent) Spanish (Proficient)

Non-Academic Interests

- Sailing: I live on a sailboat, sailed it up and down the coast of British Columbia, then from Seattle to San Francisco
- Scuba Diving: PADI Assistant Instructor, 250+ logged dives, pro #255058
- Paragliding: working on the novice certification
- Mechanics: I own and do all the work on a glorious Honda Magna 1982 and on a splendid Suzuki GS500 1994
- Traveling: 20+ countries and still counting
- Music: guitar, piano, diatonic accordion and karaoke aficionado