

ABHINAV BHANDARI

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EDUCATION

McGill University

BA Computer Science (Major), Economics (Minor)

Montreal

Sep, 2014 - May, 2018

EXPERIENCE

Softbank Corp

Software Developer

Tokyo

Oct, 2018 - Present

- Developed a rule-based FAQ chatbot, using Dialogflow, FireBase, Angular and Google Cloud Platform for Slack, in Python. Designed to handle multiple custom intents from user's input.
- Developed a Python library for analysing geolocation data that using geohash, locality sensitive hashing and clustering.
- Implemented an Android application that processes mobile's sensor data in the background using WorkManager, Services and Threading.
- A simple REST API in Django that provides translation related service that is deployed to Google Cloud Run in a Docker container.

Network Dynamics Lab, McGill University

Social Informatics Researcher

Montreal

May, 2018 - Sep, 2018

- Analysed hateful (banned) subreddits and their users' language use. I examined the relationship between community specific slang and topics discussed by users through Gibbs Sampling, and LDA. Also used Morfessor and implemented a slang approximation algorithm in Python.

Mentor Infolytica, a Siemens Business

Software Developer (Intern)

Montreal

May, 2017 - Aug, 2017

- Implemented an object oriented electric circuit simulator in C++, with libraries such as armadillo for matrices and boost. Heavy focus on design patterns (e.g, Factory Pattern, Decorator Pattern).

Rakuten Travels

Software Developer (Intern)

Tokyo

May, 2016 - Aug, 2016

- Contributed to the development of an API, in Java 8, that optimizes flight search and vacation package search based on client and user requirements for the Travel department of the largest e-commerce company in Japan. Authored around 20 Java classes and worked in an Agile setting.

PROJECTS

Research Paper on Slang on Reddit Python (Spacy, Pandas, Numpy, Word2vec)

Examined characteristics, such as named entity recognition and semantic shifts, of slang terms in online communities. Over 2 Terabytes of data was analysed using GNU parallel processing, and I wrote an open-source package for slang analysis in Python. Research paper was accepted for publication and oral presentation at W-NUT, EMNLP 2019).

A Markdown Blog Angular, Firebase, (Typescript, HTML, CSS)

A CRUD blog that uses a markdown editor to make blog posts using Firebase Storage and Angular. The blog supports update and delete functionalities for an authenticated user.

Synthboard Angular, Canvas (HTML5), Animejs, (Typescript, HTML, CSS)

A online music keyboard that plays notes with a display of animated colours. Developed using HTML5 Canvas, Angular and Animejs.

Research task on Jeopardy Dataset

Predicted Jeopardy (TV-Show) question categories using n-gram classifiers. Showed that stopwords are effective signals of categories for short texts (15 words), and that the sequence of Question + Answer is more grammatically coherent than Answer + Question.

AWARD

Best Research Paper Award

W-NUT, EMNLP 2019