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SKILL SUMMARY

- **Programming Languages:** C#, C and Python (5+ years); C++ (1+ years); experience in Perl, Matlab, R, HTML, awk and various shells; Experienced with development on UNIX/Linux and Windows
- ML and NLP: Fluent in core NLP techniques such as Language Modeling, Topic Modeling, Word Embedding (e.g., Word2Vec, GloVe) and statistical techniques therein (e.g., MLE, MAP, MCMC, Bayesian Networks); fluent both in generative (e.g., Naive Bayes, HMM, LDA) and discriminative (e.g., Logistic Regression, Decision Trees, CRF) approaches; solid understanding of DNN theory and practice; Completed 5-course DNN specialization with Corsera
- Databases: Scope and Cosmos DB (4+ years); experience with PL/SQL and PostgreSQL
- Tools: Vim, Pandas, NumPy, NLTK, Scikit-Learn, Keras, TensorFlow, Flask, Git, AWS, Visual Studio

EXPERIENCE

Insight Data Science

Seattle, WA

Data Science Fellow

2018 - Present

- Built *Talking Point Sampler*, a tweet aggregator which enables users to interface with political issue ads from across the spectrum; deployed an interactive web app using Flask and Bootstrap on AWS
- Developed a political ad language model, a Kneser-Ney N-gram model, using 66K+ Facebook ads

Microsoft Bing

Bellevue, WA

Software Development Engineer

2013 - 2018

- 5+ years experience in ML+NLP product development for Bing's web text mining team; including data collection, algorithm design, EDA, training, experimentation, feature engineering, and deployment to Terabyte-scale data pipelines
- o Trained various information extraction models for local business attributes (e.g., address) using 100+GB of web contents
- o Delivered novel iterative structure inference schemes for top impression chain Busineses
- o Developed news recommendation features using sentiment analysis, NER, and other NLP techniques

Microsoft Research
Research Intern
2012

Research Intern

• Contributed to the development of a novel algorithm to identify and extract entities in documents

Carnegie Mellon University, School of Computer Science

Pittsburgh, PA

Graduate Research Assistant

2007 - 2013

- o Statistical Text Analysis, Latent Variable Models, Information Extraction, Probabilistic Topic Models, Text Forecasting
- o Developed novel graphical model for text generation in political blogs, trained with 600K+ user comments and posts
- o Developed novel text forecasting models for Congressional votes, trained using text from 50K+ congressional bills
- o 20+ publications and reports; 10+ conference talks; released 3 public data sets

Columbia University

New York, NY

Master of Science Teaching Assistant Fellow

2005 - 2007

o Courses Taught: Undergraduate Programming, Data Structures, Programing Languages & Compilers

Ricoh Corporation

West Caldwell, NJ

System Engineer

2001 - 2005

Developed embedded applications and APIs in C/C++ for UNIX based document management devices

EDUCATION

Carnegie Mellon University, School of Computer Science

Pittsburgh, PA *2007 – 2013*

Ph.D. in Language and Information Technologies

New York, NY

Columbia University, School of Engineering and Applied Science *M.S. in Computer Science*

2005 - 2007

Hunter College

New York, NY

B.A. in Computer Science with honors

1998 - 2001

Patents