AKASHDEEP SINGH JASWAL

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SUMMARY

- Strong track record of applying ML end-to-end from defining the problem, scraping, crowdsourcing & annotating the right data, research state-of-the-art techniques/models to solve the problem, and shipping production-ready ML systems.
- Classification, regression, unsupervised learning problems on datasets varying in size, balance, formats, and structural properties.
- Collaborate with engineering, product management, and business stakeholders to ship impactful consumer & enterprise features.
- Technical: Python, R, SQL, Hive, Spark, Docker, Kubernetes, Tableau, ML frameworks (Sklearn, Tensorflow, Keras, Pytorch).

WORK EXPERIENCE

Petuum Inc, Sunnyvale, CA – Senior Software Engineer (NLP) *Aug '19 – Present*

- Architect and build large-scale, low latency multilingual semantic search systems using elasticsearch and vector space models.
- Reduced training time by 75x (from 8 hours to 4 minutes), improved accuracy by 20pp, scaled model serving and inference for concurrent usage and reduced infrastructure costs substantially (~$10k monthly savings on AWS).
- Lead, mentor and grow the ML team to encourage innovation and implementation of state-of-the-art deep learning.

SAP Labs, Conversational AI, Palo Alto, CA – ML Engineer *March '17 – Aug '19*

- End to end applied research, development, and deployment of machine learning models in the conversational AI domain.
- Projects include natural language understanding models for intent recognition, entity extraction, coreference resolution, closed domain question & answering on structured/unstructured text, and information retrieval systems.
- Communicating and collaborating with the product team, business stakeholders and engineers to ship features on the platform.
- Shipped features in production: Demo link - *pronoun resolution for dialog context management*, *text augmentation as a service*.

Concur, Seattle, WA – Product Data Science Intern *June '16 – March '17*

- Built models to predict customer churn and proactively mitigate risks leading to $5M in estimated lifetime revenue earnings.
- Partnered with the product team to identify key strategic focus areas for new feature development using NLP.
- Automated an end-to-end data pipeline for data extraction, preprocessing, mining, prediction and data visualization.

Google Inc., Hyderabad, India – Associate Account Strategist *May '14 – Aug '15*

- Identified effective targeting and segmentation strategies for ad campaigns to maximize ROI for the customer.
- Developed dashboards and tools to provide insights for cross-functional partners to support data-driven decision making.

Google Inc., Hyderabad, India – SMB Intern *May '13 – July '13*

- Developed robust metrics to inform strategy and measure the incremental impact of Ad campaigns.

EDUCATION

University of Washington, Information School, Seattle, WA *June '17*

Master of Science in Information Management -- Specialization in Data Science & ML. Relevant Coursework: Data Science, Machine Learning & Econometrics, Advanced Data Visualization, Information Architecture, Data Ethics and privacy, Applied Social Statistics.

Osmania University, Hyderabad, India *June '14*

B.S. Computer Science and Engineering -- Relevant Coursework: Data Structures, Software Engineering, Database Management Systems, Artificial Intelligence, Data Mining, Information Security, Information Storage, and Management

ACADEMIC RESEARCH PROJECTS

Data for Economic Development - Improving access to Financial Institutions based on Mobile Cellular Data in Ghana (2016)

- Worked as a Research Assistant for Prof. Joshua Blumenstock to crunch terabyte-scale Call Detail Records data using Spark.
- Cleaning, anonymizing and visualizing data for enabling analysis of the socio-economic behavior of the population.

Healthcare Cost and Utilization Project (HCUP) - Fixed Effects Econometrics (2016)

- Worked with Prof. Benjamin Althouse on modeling relationships between vaccination uptake and hospitalization for WA state.
- Built fixed-effects models in R for gauging the impact of vaccination within counties normalizing for demographic characteristics.