Ashutosh Parekh

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EDUCATION

University of California, San Diego, USA *(Expected) Dec 2018*
M.S. in Computer Science - CGPA: **3.68/4.00**
Coursework: AI, Machine Learning, Recommender Systems, Neural Networks, Networked Systems, Data Analytics

D.J. Sanghvi College of Engineering, University of Mumbai, India *2012 - 2016*
B.E. in Information Technology - CGPA: **9.25/10.00**

PROFESSIONAL EXPERIENCE

Software Engineering Intern, Salesforce, Inc. *June 2018 - Sept. 2018*
San Francisco, CA
- Working with the Big Data Multi Tenancy team on the improvement and optimization of HBase and Apache Phoenix.
- Developed a Canary Test Tool for Phoenix Query Server using Java. Ensured high availability by deploying it on multiple nodes and implementing leader election using Apache Curator.
- Developed scripts for periodically parsing the results and pushing it to the centralized alerting and monitoring app.
- Contributed the tool back to open-source which will be reviewed and integrated with the core code base.

Software Engineer, JPMorgan Chase & Co. *Jul 2016 - Aug 2017*
Corporate Technology, Mumbai, India
- Developed applications in Java using a micro-services architecture and deployed on the private cloud. This cloud adoption helped reduce infrastructure costs by around 60%. Implemented session replication, authentication, load balancing and Log aggregation and analytics service.
- Programmed a C# application to facilitate discounted early payment of invoices saving around 2-5% of total bill amount. Implemented file transfers, batch and scheduled job processing using SFTP, Mail Exchange and Scheduling APIs.
- Honored as one of the *top three* overall performers out of 180 Analysts from India.

TECHNICAL SKILLS

- **Languages and Frameworks**: C, C++ (STL), Java, Python, Go (basic), PyTorch (basic), Keras (basic)
- **Web Development**: Python Django, HTML, CSS, JavaScript, PHP, Java Spring, Ruby on Rails (basic)
- **Database Technologies**: SQL, NoSQL (basic), HBase (basic)

PROJECTS

SurfStore - Distributed Networked File Storage Service
- Created a file storage service where every file was divided into blocks and a distributed metadata store kept track of the correspondence between files and blocks.
- Implemented the 2 Phase commit protocol for replication consistency and fault tolerance of the distributed database.
- The application was built in Java leveraging gRPC for inter-node communication.

Prediction of Salary Income Ranges using Supervised Learning Algorithms
- Leveraged the Stack Overflow dataset to build a model which predicts the salary range of a person.
- Performed data cleaning, feature engineering, parameter tuning and experimented with Random Forests, Neural Nets, XGBoost and various other supervised learning algorithms.
- Compared, contrasted the various approaches and achieved a Test set classification accuracy of around 70%.

Image Captioning using Deep Neural Networks
- Developed a novel architecture where an additional RNN layer was introduced in between the CNN and LSTM layers for image captioning.
- The advantages and disadvantages of the new architecture were analyzed in detail using various metrics like BLEU score.

Ranking of DBpedia Entity Properties Using Machine Learned Ranking (MLR) Algorithms
- Ranks the various properties of a DBpedia Graph Database entity as per their relative importance.
- Supervised learning and the Random Forests Algorithm was used and implemented using Python and RankLib.
- Presented and published the paper *Heuristic Generation of Dynamic Quiz Game Using Linked Data and Gamification* at the International Conference on Inventive Computation Technologies (ICICT), IEEE, 2016.

ACHIEVEMENTS AND EXTRA-CURRICULAR

- **Graduate Teaching Assistant** - Intro. to Discrete Mathematics, UCSD *2018*
- **ACM-ICPC Kharagpur Asia Onsite Regionals** - Rank 57/100 *2014*
- **ACM-ICPC Amritapuri Asia Onsite Regionals** - Rank 179/265 *2014*
- **JPMorgan's Code for Good Hackathon Mumbai** - Challenge Winner *2015*
- **Vice-Chairperson, Computer Society of India** - Best Student Chapter, DJSCE *2015*