Ankit Soni

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EDUCATION	**Carnegie Mellon University:** B.S. in Computer Science, Math Minor.	**June 2014**

EXPERIENCE		

Uber *Software Engineer – Driver Growth* **Jan 16 – Jun 16**
- Engineer on 5 person South-East Asia Driver Growth focused on region-specific features to drive growth on supply side. (Python, Flask, Tornado)
- Launched several experiments and features to increase funnel conversion and first-trip rate.
- Led a software migration on team that significantly reduced tech debt and allowed us to iterate faster.

AppLovin *Software Engineer – Platform Team* **Oct 14 – Jan 16**
- Built the internal data analysis platform – including custom event ingestion to HDFS, Spark cluster setup, administration and tuning & APIs providing cached, partitioned data. The system ingested 30 billion/1TB events daily. (Java, Parquet, Spark, Scala, Akka).
- Worked closely with the data scientists to evolve the architecture and got from zero to a stable platform powering daily jobs to train predictive models in <6 months.
- Implemented the #1 requested feature to spark-jobserver project to allow our infra to handle multiple parallel jobs. 3rd most active contributor to the project.

Amazon *Software Development Engineer Intern* **Summer 2013**
- Built a system to generate product recommendations for customers as they browse the web, using aggregated customer browsing data (Java, Spring, Guava, Python).
- Performed basic data analysis, and tuned an internal machine learning framework to build a data processing pipeline, with incremental updates.
- Analyzed data using Elastic Mapreduce(EMR), deployed on EC2 and stored output on S3.

Avere Systems *Engineering Intern* **Summer 2012**
- Built an automated cross-browser/operating-system web-testing framework (Python, Selenium, jQuery)
- Developed system to automatically generate testing code applicable to any browser/OS fro a DSL description of the test.
- Wrote a web application (Django) to dispatch tests, and to display, search and filter results of tests. Used to comprehensively test 30+ webpages automatically across 20 platform/browser combinations.

PROJECTS	**Scala Lisp**	/scala-lisp

Scala Lisp   /scala-lisp
- Developed a Lisp interpreter in functional style with a REPL and tests (Scala)

Hadoop/HDFS clone   /440-mapreduce
- Built a simplified clone of Apache Hadoop Map-Reduce and the underlying HDFS
- Users can configure a cluster, and launch map-reduce jobs via a Java API
- Fault-tolerant system – Participant nodes can die & rejoin at any point. Replication factor is maintained, jobs are transparently re-scheduled.

Question Answering System
- Built a system to automatically answer questions based off a corpus of Wikipedia articles (Scala, Stanford Parser, OpenNLP, SistaNLP)
- Built and used components for Information Retrieval (Okapi BM25), Keyword Extraction, Named Entity Recognition, Co-Reference resolution.
- Ranked 2nd out of 15 teams, including graduate student teams.

LiveWeb   /liveweb
- Developed a Chrome extension that allows multiple people to browse and annotate the web together in real-time in a 24-hour hackathon. (Scala, JS, WebSockets)
- Won 3rd place at a Pittsburgh regional hackathon.

Proxy Server
- Built a multithreaded proxy server in C that handles HTTP/1.0 GET requests and binary data (e.g pictures, videos, audio). Supports concurrent requests & caching.

SKILLS	**Distributed Systems** – Fault Tolerance, Concurrency, Performance & Memory Tuning

Distributed Systems – Fault Tolerance, Concurrency, Performance & Memory Tuning
Data Analysis Platforms – Spark, Akka, Parquet
Programming – Java, Python, Scala, others. Functional programming.

EXTRACURRICULARS	Member of the Chess Club, Plaid Parliament of Pwning (Security Research Group)

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SIFE – Active in promoting entrepreneurship on campus via competitions