SUMIRAN SHAH

sumiranshah@gmail.com | (917) 753-3813 | SF Bay Area, CA | https://github.com/sumiran

EDUCATION

Columbia University   Master of Science, Computer Science (GPA: 3.71/4.0)   September 2013 – December 2014
> **Relevant Courses:** Operating Systems, Distributed Systems, Analysis of Algorithms, Advanced Database Systems, Cloud and Big Data, Programming Languages and Translators, Security Architecture and Engineering, Cloud and Mobile Security

University of Mumbai   Bachelor of Engineering, Computer Science (GPA: 74/100)   August 2008 - June 2012
> **Relevant Courses:** Software Architecture, Database Management Systems, Data Warehousing and Mining, Neural Networks and Fuzzy Logic, Artificial Intelligence, Data Structures, Theory of Computer Science, Advanced Computer Networks

WORK EXPERIENCE

Google (Software Engineer 3), Mountain View, CA   January 2015 - Present
- I work on an internal framework team (Bedrock) that powers all YouTube apps on Living Room devices (Chromecast, Game Consoles, Smart TV, Set Top Boxes).
- Primary projects include adding module support to the internally built dependency injection system, binary size and startup latency optimization, and reworking the templating engine to support dynamic markup. Technologies: **JavaScript, TypeScript, Python**

ZocDoc (Intern – Software Engineer), New York, NY   June 2014 - August 2014
- In the **Sales Data** team, developed a caching framework for frequent Salesforce Bulk Queries in the order of millions of data rows requested by API consumers. Factored in a varying levels of acceptable data 'staleness' for common requests and helped reduce operations ranging from 45-50 minutes to 2-3 minutes by eliminating on-demand network overhead. Technologies: **C#, REST**
- Designed and implemented fault tolerance into a Salesforce Bulk job dispatcher to handle failures and adaptively retry or retire the job at fault. Helped understand and analyze common failure reasons. Technologies: **C#, REST**

Microsoft (Software Development Engineer), Hyderabad, India   July 2012 - July 2013
- In the **Enterprise Service Bus** team, designed and developed a compiler to translate a third party scripting language into C# and automate the migration of document maps from Gentran to BizTalk. This improved map migration efforts from 40 man-hours to 4 man-hours per map (for 600 maps) including validation and verwification. Technologies: **C#, MS SQL**
- Designed and implemented a side project, **Remote Desktop over Cloud** which is a system that allowed Enterprise Users to securely remote desktop into work machines from remote locations, both being behind private networks. The key highlight was the ability of the company to enforce and configure their own security policies on the client. Technologies: **Microsoft Azure, VNC**
- As the Infrastructure Committee Program Manager of the Microsoft Academy of College Hires (MACH) community in Microsoft, designed and developed an internal job rotation tool and selection tool **JDMatch** used by MACHs and Microsoft managers. Technologies: **MVC4, Entity Framework, MS SQL**

Microsoft (Intern – Software Development Engineer), Hyderabad, India   June 2011 - August 2011
- Worked on adding custom plugins for the internal instance of Microsoft Dynamics CRM. Technologies: **C#, JavaScript**

PROJECTS

Graphene – graph based programming language, Columbia University   January 2014 – April 2014
- Designed and developed a cross platform programming language that natively supports graph and tree data structures, primarily targeted for data analysis of social networks. Incorporated features of modern programming languages such as dynamic typing, lambdas/first class functions, and multiple return values. Technologies: **Python, Python Lex-Yacc**

AndroidAnalyzer, Columbia University   January 2014 – April 2014
- Developed a tool to analyze decompiled Android applications and determine possible attack vectors on the app developer such as strings with entropies resembling private keys or OAuth API tokens to popular services. Technologies: **Python, Java**

NinjaMouse (Final Year Project), Mumbai University   June 2011 - June 2012
- Developed a tool to provide an intuitive interaction environment to the user similar to Microsoft's Kinect, using hand gestures to replace various actions of a mouse and keyboard. The highlight was the usability with even a low resolution camera. Technologies: **C++,** with **OpenCV** Libraries and **Boost** for Multi-Threading

Zip It up SMS - Compression Algorithms in Mobile Messaging, Mumbai University   August 2010 - March 2011
- Developed a pseudo adaptive Huffman based compression algorithm achieving 60% greater text compression ratios for text message length snippets. Received a research grant from the Government of India and published a paper in an international conference for the algorithm for the same. Technologies: **Java (J2ME)**