Suraj Chafle

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EDUCATION

ILLINOIS INSTITUTE OF TECHNOLOGY Chicago, IL — Dec 2016
Master of Science in Computer Science Cum. GPA: 3.57/4.00
Relevant Coursework: Cloud Computing, Distributed Systems, Operating Systems, Computer Networks, Design and Analysis of Algorithms, Mobile Application Development, Database Organization

COLLEGE OF ENGINEERING PUNE Pune, India — May 2012
Bachelor of Technology in Electronics and Telecommunication Cum. GPA: 7.70/10.00

EXPERIENCE

ILLINOIS INSTITUTE OF TECHNOLOGY | C Programmer - Smart Grid Research — May 2016 – Oct 2016
- Developed Python scripts to generate skeleton C code for simulating power system models for exciters, generators etc.
- Optimized generated C code for faster than real time simulation

IMAGINATION TECHNOLOGIES | Software Design Engineer | Pune, India — Feb 2015 – Dec 2015
- Built a test automation framework with Django and MySQL for frontend, python for test execution, SOAP protocol to distribute test requests and REST APIs; which resulted in reduced manual testing efforts.
- Created a white box testing framework in C++ for Video API testing which helped in earlier bug detection

ROBERT BOSCH | Software Engineer | Bangalore, India — Jun 2012 – Jun 2014
- Developed tools for automation of SDK builds, packaging and making them shipping-ready using CMake, Perl and Shell
- Automated testing of Bosch's new OpenGL based Navigation system with Perl and Shell thereby easing continuous integration

SKILLS

PROGRAMMING LANGUAGES
Over 5000 lines: C/C++, Python, CMake, LaTeX, HTML, CSS
Over 1000 lines: Java, Perl, Shell, Javascript, MySQL, Android
Familiar: OpenCV, Scala, MATLAB, PostgreSQL, NodeJS

OTHERS
Tools: Git, Gdb, Jenkins, JIRA, Visual Studio
Big Data: Spark, Hadoop MapReduce, Lucene, Solr
Web & Cloud: Django, MongoDB, Jquery, D3, AWS, Heroku

RESEARCH

MULTIPROGRAMMING WITH NAUTILUS | Chicago, IL — Aug 2016 – Dec 2016
Worked with Prof. Kyle Hale to explore possibility of achieving multiprogramming without having to implement heavyweight process subsystem for Nautilus Aero-kernel by using Intel's virtualization features.

DOCUMENT SEARCH IN DISTRIBUTED SYSTEMS | Chicago, IL — May 2016 – Aug 2016
Worked with Prof. Ioan Raicu to develop a framework with distributed query distribution for overcoming limited parallel connection in document search with centralized server. Published this research at Supercomputing Conference, 2016 [1]

PUBLICATIONS

[1] S. Chafle, J. Wu, I. Raicu, and K. Chard, "Optimizing search in unsharded largescale distributed systems," Nov. 2016.

PROJECTS

Benchmarking AWS instance | Jan 2016 – Feb 2016 Developed a tool in C to benchmark CPU, memory and disk performance of an AWS instance. Compared results against standard benchmarking tool viz. linpack, iozone and stream

Distributed Job Scheduling | Apr 2016 – May 2016 Developed a job scheduler in Python using AWS SQS and DynamoDB mimicking Animoto video creator. Used S3 to store generated videos.

Extraction of Road and Lane boundary from Sat-Imagery | Mar 2016 – Apr 2016 Developed a tool using OpenCV in python which returns poly-lines for road and lane boundaries by processing satellite images fetched using vehicle's latitude and longitude.

Travelogue- Django App Developed a web app to maintain past travel records using Python and MySQL. Used D3, jQuery and Ajax for displaying travel statistics. Integrated Facebook OAuth login.