

PRAFULLA GAIKWAD

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ACADEMIC PROJECTS:

1. **MeetME (Java)** – Developed a web application in a team of two which checks the limitations of popular meeting scheduler applications like doodle following **AGILE** methodologies on **SPRING MVC framework**. I contributed majorly towards backend server side using Spring MVC framework and some part of client side was done in HTML, jQuery, Ajax, Bootstrap.
2. **Develop a Movie Management Android application(Java)** – Developed a Movie Manager Application capable of communication with a standalone Java server via Json RPC and communication with the Open Movie Database REST API to fetch movie details and (add, delete, reset, modify) display them in an expandable list View based on its Genre.
3. **Compiler for self-designed Language GPS (Java)** – Designed and developed a language which can interpret normal programs and recursion. I **implemented the Grammar, Lexer, Parser and Intermediate Code Generator** with ANTLR4 in Java and **designed the Run time environment** to take intermediate code as an input and output the result of the program intermediate code.

PROFESSIONAL EXPERIENCE:

1. Software Development Engineer, Intern

EMC Corporation (May 2016-Aug 2016)

Developed a Parser and Translator in Python to convert TestMgr Lists to Python unit test cases.(Python, OOPs, Design Patterns)

- Optimized the lists conversion to Python test cases to save around 95% of time incurred in manual conversion of lists.
- Developed Parsing Expression Grammar PEG based Grammar for proprietary scripting language syntax used in Test Manager framework.
- Designed the translator and developed Code Generation Semantics to convert corresponding lists constructs to python compliant and helix framework source code adhering to the Unit Test framework.

2. Research Developer

I3DEA laboratory, ASU (Jan 2016 – Present)

Monitor and Manage inverters(IoT) – Working on a Verizon funded project to develop a data warehousing system for management and monitoring of Solar inverters remotely. (Python, Django, Celery Multitasking, Modbus, RS485)

- Developed a multitasking environment in **Python Celery (RabbitMQ) on Raspberry Pi** implementing **TCP/IP** and **RS485 based Modbus SMA** protocol to communicate with Inverters.
- Developing a web interface to visualize the data collected form Raspberry Pi which is stored on a remote server using Django Python.

3. Graduate Teaching Assistant (Operating systems and Networks)

Arizona State University (Spring 2016, Fall 2016)

- Design and grade quizzes. exams and assignments for online and in-person course.
- Attend to student technical queries and help them understand the underlying concept.

4. Software Engineer

Samsung Research Institute- Noida, India (June 2012-July 2015)

- Worked as a Software engineer on Power optimization of Android Smartphones.
- Developed and designed Sec-battery driver and framework throughout the Android Stack.

TECHNICAL SKILLS:

Programming expertise: Data structures, Algorithms, Object oriented programming, Concurrent multitask programming, Linux Kernel Development, Design Patterns.

Programming Languages: - Python, Javascript, Java, Nodejs, Angular, Bash shell scripting SQL, jQuery, Bootstrap

Technology and S/W Framework:– Spring, Django, Android application development and Power optimization, TCP/IP, Android Software Stack, Machine Learning,

Tools:– Eclipse, PyCharm, Git, Perforce, Android Studio, Xcode,

RELEVANT COURSEWORK:

Advanced Algorithms, Mobile Systems, Emerging languages and Compiler Design, Statistical Machine learning, Data Visualization.

EDUCATION:

Master of Science in Software Engineering - Arizona State University, Tempe, AZ (**GPA 4.00/4.00**)

May 2017

Bachelor of Technology – National Institute of Technology, Nagpur, India (**3.3 GPA**)

May 2012