

Sr. Software Engineer Sr. Software Engineer Sr. Software Engineer - Pacific Gas and Electric Corporation Fremont, CA Over 10+ Years of experience in design, implementation, testing, debugging & sustaining Software design techniques, SDLC Principles. Strong Experience in Python, Django, Javascript, SOA, Hadoop, Spark, Teradata, ETL Metadata, Web Services, XML, OOAD, skills on Windows, Mac OS X, Unix , Linux, Sun Solaris(8.0), Windows Experience in Design and implementation of build tools Experience with BigData / Hadoop Ecosystem technologies which includes Spark, Hadoop and ZooKeeper. Experienced in WAMP (Windows, Apache, MYSQL and Python/PHP) and LAMP (Linux, Apache, MySQL, Python/PHP) Architecture. Experience with Django and Flask a high-level Python Web framework. Used Pandas library for statistical Analysis. Experience using different kinds of Databases like SQL, SQLite3, PostgreSQL.

Experience in product test and simulation environment development, build, test Experience with Python Object Oriented programming and Multithreading. Strong experience in programming, pointer manipulation, link list handling, hash-table lookup implementation & data-structure programming, recursive routines and UNIX library interface. OO programming using classes with inheritance and polymorphism, data structure programming using templates, exception handling, Stream & FileIO, threads, sockets, distributed systems. Good programming knowledge of UNIX (Solaris 2.6/8.0, AIX, Linux) with multi-threaded concurrent execution, inter-process communication with pipes mutex and semaphores, kernel modules and internal workings. Work Experience Sr. Software Engineer Pacific Gas and Electric Corporation - San Francisco, CA July 2018 to Present Design and Develop and internal Bill Calculation tool as a part of PG&E Rate Design infrastructure software. The software will be a tool for Rate Design calculation for millions of customers spread over Northern California region. Project is fully funded by the California Public Utilities Commission.

Used Python, Spark, MAPR to develop a bill calculation software Calculate various parts of the software for calculation of Goods and services. Considered various modeling tool and algorithms that will implement a Fair and Just bill and rate design for customers. Spark Map Reduce Dataframe architecture, Hadoop, Hive databases Environment: Python, MAPR, Spark, Linux, Jupyter Notebook, Anaconda. Sr. Software Engineer Apple inc October 2017 to June 2018

Automate Project Management tasks as a background agent, BOT development, which would help in assigning project work, do follow up emails to assigned technical workforce, update progress of projects automatically based on various factors. Used Python to design and develop Project Management Portal also called PMO Portal where various projects are shown. Projects with assigned Project Managers are shown visually with a UI developed using Python. Wrote Python code for design development, form design, project list design, project status design. Wrote Python code to automate project management tasks and status updation. Worked on development of SQL and stored procedures on MYSQL for PMP task. Used various tools to create tables and maintain tables. Wrote PHP and Python code to interface Oracle Database API, which is used to update various Project Management tasks and automation. Developed logic for various Project Management tasks and automating those tasks. Wrote Python Quip document API code. Code was developed in Linux server with Oracle Database installed. Developed and modified cron job tasks for running python code (BOT). Wrote python code to automatically send emails for project tasks to assigned project managers. Lead and developed Bootstrap CSS HTML, AJAX, JQuery Easy UI, Javascript. Environment: Python, PHP, HTML, Javascript, MySQL, HTML, CSS, AJAX, Linux, Mac OS, Quip API, Crontab, Bash/ Shell Scripting. Sr. Research Software Engineer - Python Developer Monsanto- The Climate Corporation January 2017 to October 2017 Designed and Developed Weather Scientist application using Python and Django. Used Python /Django to develop Weather Scientist application. Participate on discussion to improve Weather Forecasting and understand various new technologies that help in implementing Weather model. Developed UI using HTML/CSS3, JQuery, and JavaScript. Designed and developed data management system using DynamoDB DB and Django. Creating new database on DynamoDB. Implemented real time Weather Data uploading to Dynamo DB database. Deployed the application on Cloud using AWS. Involved in Developing a Restful API'S service using Python Flask framework. Wrote Python code using Ansible Python API to automate cloud deployment process. Perform research on the Weather data analysis for South America region. Used Ansible to document application dependencies into version control. Perform statistical analysis together with a team of Weather

Scientists. Used Amazon Cloud EC2 along with Amazon SQS to upload and retrieve Weather Data. Used RESTful Web Services with JSON to get parts/products information. Developed Database tables, SQL to update orders information in database. Used on Python and AWS to upload historical weather data to AWS cloud. Used Python, Pandas, Numpy, and Xarray for implementing code. Research new tools and technology such as Artificial Intelligence and Machine Learning methods to improve overall software architecture. Environment: Python, Django, Flask, REST API, JSON, HTML, CSS, Javascript, UNIX, Linux, AWS, Jupyter Notebooks, S3, DynamoDB DB, Anaconda, Ansible, Pandas, Numpy, Xarray

Sr. Software Engineer Apple inc - Sunnyvale, CA
August 2016 to January 2017 Develop Fraud monitoring and alert software. Used Python to develop software on Mac OS X, Linux, and Unix. Designed and developed data management system using Hadoop, Teradata, Big Data technologies. Wrote a process job, which will send alerts based on information read from various tables in Hadoop, ETL Metadata and Teradata. Identified several hidden bugs caused by complicated multithreading issues such as race conditions caused by asynchronous events and resolved them. The process job is a python script, which will scan various tables and generate a status and alert tables to be sent out to various groups, which indicate problems, which need immediate attention. Developed Software interaction with various multifunctional multi organizational modules. Environment: Python, Hadoop, Panda, ETL Metadata, Multithreading, Teradata, Hive, Linux, GIT, Mac OS, SVN, Jenkins.

Sr. Software Engineer ARM INC - San Jose, CA
February 2016 to August 2016 Develop multi organization critical data transfer and delivery software. Used Python to develop software on Windows, Linux. Designed and developed data management system using MySQL and Django. Developed a Front-End GUI as stand-alone Python application. For the implementation of batch job scheduling the concepts of multithreading and concurrency were practiced. Design and modelling of database with schema development and performance optimization. Environment: Python, Rest API, Django, ORM, MySQL, Rabbit MQ, Linux, GIT, SVN, Jenkins

Sr. Python Engineer Hewlett Packard - Santa Clara, CA
March 2015 to December 2015 Project: HP Open View HP OV software provides a web based management console for Managing Data Center Racks and Servers. Data Center Racks are

arranged as Enclosure and HP OV UI provides various means to manage the Enclosure such as networking interconnects, devices, servers, connection between devices and servers.

Responsibilities: Developed code in Python, MySQL to implement new and changes in functionality. Worked on development and testing of the application and various releases. Wrote Python Scripts to handled REST API's to retrieve Network data from data centers. Managed large datasets using Panda data frames and SQL. Loaded data from flat data files into MySQL and PostgreSQL database tables using insert and tables export/import; Loaded data from flat data files and Excel sheet into MySQL and PostgreSQL database using Talend Open Studio. Extracted data from MySQL and PostgreSQL database tables and REST API into flat data files and Excel sheet.

Designed and developed transactions and persistence layers to save/retrieve/modify data for application functionalities using Django, XML, PostgreSQL, SQL, Stored Procedures. Set-up Jenkins scripts/GIT for Continuous Integration/Release management. Designed User Interface for data selection using Python/Django. Created Data extract jobs using Python/SQL. Debugged Java/J2EE modules to fix the server logic. Used MySQL to store data onto the database.

Developed Data Models to be used in the application. Environment: Python, Django, Rabbit MQ, ORM, Rest API, MySQL, Panda, Java, Jenkins, GIT, Linux/Unix. Sr. Software Engineer Intel Corp - Santa Clara, CA May 2011 to February 2015 PTAC Development, Power Thermal Utility. Develop driver modules for UEFI /Firmware/BIOS development to maximize power from the CPU and Memory to be used in Haswell Servers using x64 x86 assembly C code to run on all Processor Threads. Developed unique logic to maximize power on the reference platform; Developed Max Power software code using C and x64 x86 assembly on Mac OS and UNIX; Developed tools to be a part of the PTAC Tools Development. Wrote code to work on different OS Such as Windows, Linux and Mac OS X. Provided support to major clients such as Apple, Dell Server Division.

Responsibilities: Developed Power software to be run as a part UEFI/Firmware/BIOS during the Boot Process for Haswell Servers using Python, x86, x64 Assembly. Worked on understanding the requirement and creating high level design and detail design. Designed and developed Use-Case Diagrams, Class Diagrams, Object Diagrams using UML Rational Rose for OOA/OOD techniques.

Used Python, Tcl / Tk to develop software on Windows, Linux and Mac OS X. Customize and interface with OpenGL and OpenCL graphics APIs based on C and C++ Develop interfaces for parallel processing architectures and processing of graphics APIs. Develop software for Thoroughput analysis, benchmarking of apis. Parallel processing software development api implementation for Thoroughput Analysis, API interface benchmarking software. Making changes to SCSI driver interface programs. Wrote code and develop software for Intel Architecture CPU workload Tools. Used makefile, gnu,gcc, gdb tools for compiling and debugging source code. Work with various developers to incorporate changes in drivers across multiple platforms. Environment: Python, Firmware, UEFI, Windows 7/Vista, GPU, 32bit and 64 bit, Linux, Mac OS X, Windows Tools: Mac OS X Shell programming, Unix Shell Programming, Perl, Linux 32bit and 64 bit, Ubuntu, Red hat Linux, Mac OS X Snow Leopard 10.6, and 10.6.4, SVN, Tortoise SVN SOFTWARE ENGINEER MIMOSA SYSTEMS, INC - Santa Clara, CA April 2008 to May 2011 SSR Email Archival, Retrieval and Disaster Recovery Software Responsibilities: Maintain and expand existing Software towards a Cross Platform solution. Implemented and maintain a Web based UI in ASP.NET, C#, .NET to communicate with email backup database. AJAX based communication between client and Server. Extend software to be used in Mac OS X and Linux environments. Use Pro*C with PL/SQL to access Oracle database to get and update data. Created TCP/IP in C++ stack to communicate with Java Server. Developed business logic in C++. Used makefile, gnu,gcc, gdb tools for compiling and debugging source code. Responsible for Oracle code including updating triggers, writing embedded SQL. Design, develop and test software in C++ , Javascript, XML. Environment: Python, C++, C, Distributed Systems, C#, ASP.NET, AJAX, Sun Solaris, Xcode, Windows Tools: Safari, Firefox, Internet Explorer, SVN, SSH, Xcode developer, Perl. Software Engineer Apple inc - Cupertino, CA September 2007 to April 2008 Project: iPhone engineering Description: Maintain and update iphone software for security id locking and unlocking mechanism. Provide support to third party APIs. Integrate 3rd party APIs with Windows software used to enable iPhone. Migrate the software across platform to Mac OS X. Provide a simple UI on Mac OS X to perform enablement of the iPhone. This software is to be used at the iPhone Factory.

Environment: C, C++ , Mac OS X, Windows, MFC. Tools: ClearCase, VNC viewer, Reflection X, SSH, Crosstest GUI, Fan Fare, Makefile, GDB, Expect scripting, PRRQ, AutoSys, Java, Jprobe, Static Analysis. Education BS in Computer Engineering, India Pune University 1995 Skills Linux (10+ years), Mac (8 years), Mac OS (8 years), Python (10+ years), Subversion (7 years) Links <https://www.linkedin.com/in/melwynvd> Additional Information TECHNICAL SKILLS/TOOLS:

Languages: Python, XML, Database, MySQL, Restful API, Shell, AWK, SSL. Operating Systems: Mac OS X, Unix Platforms HP-UX, Sun Solaris 8, Linux, Windows 7. NT/2000, XP, VISTA, Mac

Protocols: MPEG2, PCMCIA, Cable SCTE, ATL COM/DCOM, TCP/IP. Database: MySQL, Oracle , MS SQL Server. Development Tools: Make, Build, Shell, MS Visual Studio, Installshield, and NuMega Softlce Security: SSL, OAuth2, SAML, SHA 1, DES, Deffi-Helman Key exchange protocol, Motorola proprietary encryption. Version Control: GIT, JENKINS, ClearCase, CVS, SVN, MS VSS.

Hardware: Intel Based PCs, Apple Mac OS X.

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