**Karthik M**

**Python**

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**732 250 9051**

* About **8 years** of IT experience in design, development, testing, maintenance and documentation of Enterprise applications using various technologies, analyzing complex business requirements & mapping them to system specifications.
* Designed and implemented large scale business critical systems
* Experience in developing web-based applications using **Python 2.7/2.6, Django 1.4/1.3**
* Worked with **Python, Java** to create scalable and robust common components which can be used across the whole framework.
* Developed web applications and **RESTful** web services and APIs using **Python Flask, Django, Pyramid and PHP**.
* Experience in implementing with server side technologies with restful API and MVC design patterns with **node JS and Django** framework.
* Worked on object oriented programming concepts using **Python and Django**.
* Experienced in working with various Python IDE’s using **PyCharm, PyScripter, Spyder, PyStudio and PyDev.**
* Implemented different python libraries **BeautifulSoup, numpy, scipy, pytables, matplotlib, python-twitter, Pandas data frame and urllib2** in various tasks.
* Working knowledge of **Python ORM SQLAlchemy**
* Good Experience in debugging the issues using **pdb**.
* Proficient in developing multi-threaded web services using **CherryPy & bottlePy** framework.
* Leveraging queueing architectures with **RabbitMQ** for scalability, performance and building.
* Knowledge in working with continuous deployment using **Heroku and Jenkins**.
* Proficient in writing unit testing code using **Unit Test/PyTest** and integrating the test code with the build process.
* Experienced in NoSQL technologies like **MongoDB,** **Cassandra, Redis** and relational databases like **Oracle, SQLite,** **PostgreSQL and MySQL databases.**
* Experience on Web development using **HTML4/5, CSS/CSS3, JavaScript, JQuery, Angular JS, AJAX, XML** and **JSON** by following W3C standards.
* Experience in developing applications using amazon web services like **EC2, Cloud Search, Elastic Load balancer ELB, S3, CloudFront, Route 53**
* Extensive development experience in **Java, Struts, JSPs, Servlets, taglibs, Hibernate, JDBC, HTML, JavaScript, SQL, XML**
* Excellent knowledge of Object Oriented design, MVC architecture, Struts framework, spring framework**,** Design patterns.
* Extensive experience in developing applications using **Java API, Swing, HTML3/4/5, Flex, JavaScript, CSS2/3, JQuery, JDBC, JSF, JMS, XML**
* Developed J2EE applications on IDE's like **Eclipse, My Eclipse, Google GWT, and Rational Application Developer**
* Experienced in using Message Brokers like **RabbitMQ, Kafka** and Messaging libraries like **ZeroMQ**
* **SQL, PL/SQL** programming, developing complex code units, database triggers
* Development Experience in **Linux (CentOS, Debian, Ubuntu), Mac OS**
* Familiar with **Shell Scripting (bash), Perl**
* Knowledge of web servers - **Apache, Nginx and load balancers - Haproxy**
* Solid background in Object-Oriented analysis and design used various Design Patterns
* Hands on experience of **Git, SVN, CVS**
* Well versed with **Agile with SCRUM, Waterfall Model** and Test driven development methodologies.
* Performed code reviews and implemented best Pythonic programming practices

Willing to relocate: Anywhere

Authorized to work in the US for any employer

**TECHNICAL SKILLS:**

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| --- | --- |
| **Operating Systems** | Windows 98/2000/XP/7,8, ,Mac OS, UNIX and Linux CentOS, Debian, Ubuntu |
| **Programming Languages** | Python, Java, C#, PHP |
| **Web Technologies** | HTML/HTML5, CSS/CSS3, XML, DOM, AJAX, jQuery, JSON and CSS Bootstrap. |
| **Frameworks** | Django, Flask, Pyramid, PyJamas, Jython, Angular JS, Node JS, Spring, Hibernate |
| **Webserver** | Apache HTTP webserver, WebLogic, WebSphere, JBoss and Apache Tomcat |
| **IDE** | Eclipse, webstorm, Sublime Text, Brackets, Pycharm, Pystudio, Pyscripter. |
| **Analytic Tools** | Google Analytics Fiddler |
| **Cloud Computing** | AWS EC2, S3, RDS(MY SQL), SQS |
| **Deployment Tools** | Heroku, Amazon EC2, Jenkins and Fabric |
| **J2EE** | JDBC, JNDI, JSP and servlets |
| **Databases** | Oracle 8i/9i/10g/11g, MySQL, Sqlite3, Cassandra, Redis and mongo DB |
| **Testing Tools** | Bugzilla, Jasmine, Pyunit, JIRA and Junit |
| **Protocols** | TCP/IP, HTTP/HTTPS, SOAP |
| **Miscellaneous** | Git, SVN, CVS |

**PROFESSIONAL EXPERIENCE:**

**Sr. Python developer**

**Cerner Corporation,** Malven, PA.

February 2015 to Present

**Responsibilities:**

* Involved in **software development life cycle (SDLC)** of tracking the requirements, gathering, analysis, detailed design, development, system testing and user acceptance testing.
* Developed entire frontend and backend modules using **Python on Django Web Framework**.
* Involved in designing user interactive web pages as the front end part of the web application using various web technologies like **HTML5, JavaScript, Angular JS, JQuery, AJAX** and implemented CSS for better appearance and feel.
* Knowledge of cross-browser and cross-platform development of HTML and CSS based websites in Windows like IE 6, IE 7, IE 8 and FF.
* Interactive in providing change requests, trouble reports and requirements collection with the client.
* Actively involved in developing the methods for **Create, Read, Update and Delete (CRUD)** in Active Record.
* Implemented and modified various **SQL queries** and Functions, Cursors and Triggers as per the client requirements.
* Managed code versioning with **GitHub, Bit Bucket** and deployment to staging and production servers.
* Implemented **MVC architecture** in developing the web application with the help of Django framework.
* Used **Celery as task queue and RabbitMQ, Redis** as messaging broker to execute asynchronous tasks.
* Designed and managed API system deployment using fast http server and **Amazon AWS architecture.**
* Involved in code reviews using GitHub pull requests, reducing bugs, improving code quality, and increasing knowledge sharing
* Implemented monitoring and established best practices around using elastic search.
* Install and configuring monitoring scripts for **AWS EC2 instances**.
* Implemented task object to interface with data feed framework and invoke database message service setup and update functionality.
* Working under **UNIX environment** in development of application using Python and familiar with all of its commands.
* Developed remote integration with third party platforms by using **RESTful web services**.
* Automated Production tasks.
* Updated and maintained Jenkins for automatic building jobs and deployment.
* Used many regular expressions in order to match the pattern with the existing one and store them in data base on a chronological basis.
* Implemented code to perform CRUD operations on **MongoDB using PyMongo module**.
* Improved code reuse and performance by making effective use of various design patterns and refactoring code base.
* Involved in development of a Map based application for integral analysis purpose.
* Updated and maintained **Puppet rspec unit/system test.**
* Involved in analysis and design of the application features.
* Experience in debugging and troubleshooting programming related issues.
* Worked in **MySQL database** on simple queries and writing Stored Procedures for normalization.
* Deployment of the web application using the **Linux server**.

**Environment:** **Python 2.7, Django 1.7, HTML5, CSS, XML, KML, MySQL, JavaScript, Angular JS, JQuery, CSS Bootstrap, RESTful, MS SQL Server, MongoDB, Elastic Search, Ubuntu server, Windows 12 Server, Amazon s3, Jenkins, Map Box, GitHub, Bit Bucket, Linux, and Windows**.

**Python Developer**

**Citi Bank**- Warren, NJ

August 2014 to February 2015

**Responsibilities:**

* Analyzed system requirements specifications and also in client interaction during requirements specifications.
* Designed the front end of the application using **Python 2.7, HTML5, CSS, AJAX, JSON and JQuery.**
* Worked on backend of the application, mainly using Active Records.
* Designed and developed communication between client and server using Secured Web services.
* Developed and tested many features for dashboard using **Python, Java, Bootstrap, CSS, JavaScript and JQuery.**
* Writing backend programming in **Python.**
* Used **JavaScript and XML** to update a portion of a webpage.
* Developed consumer based features and applications using **Python and Django** in test driven Development and pair based programming.
* Performed Unit testing, Integration Testing, GUI and web application testing using **Rspec**.
* Implemented user interface guidelines and standards throughout the development and maintenance of the website using the **HTML5, CSS, JavaScript and JQuery**.
* Worked on **Jenkins** continuous integration tool for deployment of project.
* Worked on changes to open stack and AWS to accommodate large-scale data center deployment.
* Created interactive data charts on patient portal web application using High charts JavaScript library with data coming from **Apache Cassandra**.
* Worked on front end frame works like **CSS Bootstrap** for development of Web application.
* Worked in **MySQL database** on simple queries and writing Stored Procedures for normalization.
* Deployed the project into **Jenkins using GIT version** control system.
* Learned to index and search/query large number of documents inside Elastic search.
* Used **Amazon Cloud EC2** along with **Amazon SQS** to upload and retrieve project history.
* Creating invitation flow for customers to use the client portal for monitoring PHR pages.
* Created the environment specific settings for a new deployment and update the deployment specific conditional checks in code base to use specific checks.
* Used advanced packages like **Mock, patch and beautiful soup (b4)** to perform unit testing.
* Worked on translation of web pages to different languages as per client requirements.
* Updated the client admin tool to have the new features like support for internalization, support for customer service and etc.
* Implemented responsive vector maps and charts on web pages using the data from **MongoDB.**
* Collaborate with Product Management and User Experience experts regarding product definition, schedule, scope and project-related decisions.
* Manage, collaborate and coordinate the work of an offshore development team.
* Worked on rebranding the existing web pages to clients according to the type of deployment.
* Worked on updating the existing clip board to have the new features as per the client requirements.
* Used many regular expressions in order to match the pattern with the existing one.
* Skilled in using collections in Python for manipulating and looping through different user defined objects.
* Work with team of developers on python applications for RISK management.
* Taken part in entire lifecycle of the projects including Design, Development, and Deployment, Testing and Implementation and support.
* Improved code reuse and performance by making effective use of various design patterns.
* Documented the design solutions and created stories for client requirements.

**Environment:** **Python 2.7,2.5, Java 1.7, Django 1.7, 1.5, HTML5, CSS, XML, MySQL, JavaScript, Angular JS, Backbone JS, JQuery, CSS Bootstrap, Puppet MS SQL Server, Nginix server, Amazon s3, Jenkins, Mongo DB, Elastic search, T-SQL, Beautiful soup, JavaScript, Eclipse, Git, GitHub, Linux, and MAC OSX.**

**Python/Django Developer**

**GuideOne Insurance,** Des Moines, IA

October 2013 to July 2014

**Responsibilities:**

* Translated the customer requirements into design specifications and ensured that the requirements translate into software solution.
* Application was based on service oriented architecture and used **Python 2.5, Django 1.5, JSF 2, Spring 2, Ajax, HTML, CSS** for the frontend.
* Designed the front end of the application using **Python, Java, HTML, CSS, AJAX, JSON and JQuery.**
* Analyzed system requirements specifications and also in client interaction during requirements specifications.
* Developed and tested many features for dashboard using **Python, Bootstrap, CSS, and JavaScript**.
* Writing backend programming in **Python**.
* Used **JavaScript and XML** to update a portion of a webpage and Node.js for server side interaction.
* Implemented web applications in Flask and spring frameworks following MVC architecture.
* Used **spring, JDBC and JPA at persistence layer (DAO).**
* Used **Adobe CQ** for helping with reusing the components and templates for creating different web pages.
* Develop consumer based features and applications using Python, Django, HTML, behavior Driven Development (BDD) and pair based programming.
* Used **Numpy for Numerical analysis** for Insurance premium.
* Performed Unit testing, Integration Testing, GUI and web application testing using Rspec.
* Experience with advanced CSS concepts and also building table-free layouts.
* Worked on front end frame works like **CSS Bootstrap** for development of Web applications.
* Experienced in writing SQL Queries and implementing stored procedures, functions, packages, tables, views, Cursors, triggers.
* Collaborate with Product Management and User Experience experts regarding product definition, schedule, scope and project-related decisions.
* Analyzed digital consumer experiences based on foundation of the **Adobe CQ/AEM product suite**.
* Manage, collaborate and coordinate the work of an offshore development team.
* Special skills in developing user friendly, simple yet effective web based applications.
* Deployed the project into **Heroku using GIT version control system**.
* Worked in **MySQL database** on simple queries and writing Stored Procedures for normalization and denormalization.
* Used many regular expressions in order to match the pattern with the existing one.
* Build **SQL queries** for performing various CRUD operations like create, update, read and delete.
* Skilled in using collections in Python for manipulating and looping through different user defined objects.
* Work with team of developers on python applications for RISK management.
* Taken part in entire lifecycle of the projects including Design, Development, and Deployment, Testing and Implementation and support.
* Used **Pandas library for statistics Analysis**.
* Improved code reuse and performance by making effective use of various design patterns.
* Created most important Business Rules which are useful for the scope of project and needs of customers.
* Designed the architecture of the hardware environments and methodology of the code.
* Experienced in **Agile Methodologies and SCRUM Process**.
* Worked in development of applications especially in **UNIX environment** and familiar with all of its commands.

**Environment:** **Python 2.5, Django 1.4, HTML, CSS, XML, MySQL, JavaScript, Angular JS, Backbone JS, JQuery, CSS Bootstrap, MS SQL Server, Adobe CQ, T-SQL, JavaScript, Eclipse, Git, GitHub Linux, Shell Scripting.**

**Python/Django Developer**

**Credit Suisse,** Raleigh, NC

August 2012 to September 2013

**Responsibilities:**

* Taken part in software development life cycle (SDLC) of the tracking systems Requirements, Gathering, Analysis, Detail Design, Development, System Testing and User Acceptance Testing.
* Created UI using **HTML, CSS, JavaScript, AJAX, JSON, and JQuery**.
* Implemented business logic using **Python Web frame work Django**.
* Designed applications implementing **MVC architecture in Pyramid, Zope frame works**.
* Designing mobile search application system requirements and coded back-end and front-end in Python.
* Worked on **CSS Bootstrap** to develop web applications.
* Analysis and Design of application.
* Implemented Model View Control architecture in developing web applications using **Django frame work.**
* Created backend database **T-SQL** stored procedures and **Jasper Reports**.
* **ETL process** for continuously bulk importing catalog data into Elastic search.
* Worked with millions of database records on a daily basis, finding common errors and bad data patterns and fixing them.
* Exported/Imported data between different data sources using **SQL Server Management Studio**.
* Maintained program libraries, users' manuals and technical documentation.
* Managed large datasets using **Panda data frames and MySQL**.
* Wrote and executed various **MYSQL database queries** from python using **Python-MySQL connector and MySQL dB package.**
* Carried out various mathematical operations for calculation purpose using python libraries.
* Built various graphs for business decision making using **Python matplotlib library**.
* Fetched twitter feeds for certain important keyword using **python-twitter library**.
* Used Python library **Beautiful Soup for web-scraping.ss.**
* Developed applications especially in UNIX environment and familiar with all of its commands.
* Deployed the project into **Heroku using GIT version control system**.
* Performed troubleshooting, fixed and deployed many Python bug fixes of the two main applications that were a main source of data for both customers and internal customer service team.
* Implement code in Python to retrieve and manipulate data.

**Environment:** **Python 2.7, Django, HTML/CSS, CSS Bootstrap, Pyramid, Zope, MS SQL, T-SQL, Jasper Reports, JavaScript, Eclipse, Git, Linux, Shell Scripting.**

**Python Developer**

**Marmot-**Rohnert Park, CA

October 2011 to July 2012

**Responsibilities:**

* Worked on development of customer support and complains registration system. This is a Customer feedback and complains management system.
* Design, develop, test, deploy and maintain the website.
* Coding and execution of scripts in **Python/Unix/VB**
* Development of Application using **Java and Python**
* Recording of Scripts (Web, Web Services HTML) using **Vugen and SoapUI and script validation** through co correlations, parameterizations and other methods. Scripting- web and web services
* Data set up using **SQL/ORACLE/Teradata**.
* Resolving Complexity in the scripts of the website due to the complex logic and correlations
* Script validation sometimes becomes challenging as it demanded many web based logic rather than correlation and parameterization.
* Running load/endurance tests using **Vugen, ALM and controller**, server monitoring, analysis using Dynatrace, UNIX putty, SQL logs and other tools and reporting the performance. Analysing errors and exceptions using putty logs (UNIX), etc.
* Testing in **citrix protocol** with scripts and scenario
* Execution of batch jobs in **Control M, Perfmon** and other tools
* Scripting and validation of scripts through correlation, parameterization and web based logic testing (Smoke test, Load test, Endurance) using Controller for a duration further analysis, checking response times, CPU utilizations, memory leaks of servers and other performance characteristics of the website through capturing Perfmon logs and creating PAPAL reports and creating test reports.
* Designed and developed data management system using **MySQL**.
* Rewrite existing **Python/Django/Java module** to deliver certain format of data
* Used **Django Database API's** to access database objects.
* Wrote **python scripts to parse XML documents** and load the data in database.
* Generated property list for every application dynamically using python.
* Responsible for **search engine optimization (SEO)**  to improve the visibility of the website
* Handled all the client side validation using **JavaScript.**
* Creating unit test/regression test framework for working/new code
* Using Subversion version control tool to coordinate team-development.
* Responsible for debugging and troubleshooting the web application.

**Environment:** **Python 2.7, C+, HP LOAD (VUGEN, Controller, etc.) Putty, SQL, Teradata, SoapUI, ControlM, PerfMon, Django Web Framework, MySQL, Linux, HTML, XHTML, CSS, AJAX, JavaScript, Apache Web Server.**

**Python/JAVA Developer**

**Sagitta Software Technologies Private Limited** -IN

March 2010 to September 2011

**Responsibilities:**

* Implemented SAX & DOM API for XML to read & write XML for various business requirements in application.
* Provide services on java based content management system by utilization of XSLT.
* Resolve and troubleshoot the problems and fixes the bugs by utilizing java and XSLT, XML packet validation and client enquiry sending through XML.
* Involved in the Understanding of the Requirements and Design of the Application and Active involvement in many aspects of the software development lifecycle.
* Preparing the design document based on requirements. And sending project status report on by weekly basis.
* Worked with **XML, XSL to develop UI** for the application.
* Developed web Components using **JSP, Servlets under J2EE Environment**.
* Front end graphical user interface is designed using **HTML, JSP, XML and CSS, AJAX.**
* Used Tomcat as application server on development environment and JBOSS on test and Productionenvironment.
* Developed Application on IDEs like **Eclipse, Rational Application Developer, Rational Software** **Architect** andVersion control tools like **Perforce P4V, CVS, SVN, Visual SourceSafe and Team foundation server.**
* Developed views and templates with **Python and Django's view controller** and templating language to createa user-friendly website interface.
* Designed, developed and bundled various small financial utilities using **JAVA, Hibernate, XML parser SAX** which was distributed to different development teams.
* Created Connection Pools in WebSphere and configured as needed.
* Responsible for Parsing **XML data using XML parser** and Testing, fixing of the bugs and coding modifications.
* Configured SQL Developer to work with oracle and Oracle to work in the complicated queries required forthe DAO layer development.
* Responsible for investigating the issues, defects, determining problem root cause, formulating correctiveaction recommendations & implementing them.
* Used UML to design various data models including data flow diagrams, work flow diagrams and interactiondiagrams.
* Designed Class Diagrams, Sequence Diagrams depicting flow of the application using Rational Rose.
* Utilized Python in the handling of all hits on Django, Redis, and other applications.
* Self-motivated team player with good Analytical, Logical and Problem Solving ability.
* Created data base tables, functions, stored procedures and wrote prepared statements using PL/SQL.
* Participated in Daily stand-up meetings with project manager, Team Lead, co-developers, communicatedwith testers and resolved trackers.

**Environment:** **Java, Python, JDK1.6, SVN, XML, XSD, XSL, XSLT, Web Services, JSP, EJB, Struts MVC, Django, JavaScript, Spring, Hibernate(ORM Tool), JDBC, Agile, Oracle 11g, CRUD, PL/SQL, JDBC coherence, Web Sphere 6.1, Struts, JSP, Java Script, Spring IOC**

**JAVA/J2EE Developer**

**Next Education Pvt. Ltd** -**IN**

June 2008 to February 2010

**Responsibilities:**

* Involved in gathering business requirements, analyzing the project and created UML diagrams such as UseCases, Class Diagrams, Sequence Diagrams and flowcharts for the Optimization module using **Microsoft Visio**.
* Developed web components using **JSP, Servlets, and JDBC**.
* Implemented database using **MySQL.**
* Implemented J2EE standards, MVC2 architecture using **Spring Framework**.
* Developed and implemented the MVC Architectural Pattern using Spring Framework including JSP, Servletsand Action classes.
* Used **JSP, JavaScript, JQuery, AJAX, CSS, and HTML** as data and presentation layer technology.
* Set up **JBoss Server, Configured MySQL Cluster in Linux OS** and installed Open Call XDMS.
* Client pages are built using **HTML, JSP, XML** to interact with users, and the business logic is implementedusing Servlets and Java Beans.
* Used **Hibernate framework for DAO layer** to access the Oracle database Used JavaScript for client sidevalidations.
* Involved in writing **POJOs, hbm and hibernate.cfg files** and configured the same for application development.
* Extensively used **SQL, PL/SQL** in constructing views, indexes, stored procedures, triggers, cursors, functions,relational database models.
* Used **JavaScript, JQuery, Ajax** to control display as per user selection and avoid server round trips withunnecessary data and as required by application.
* Coding of **SQL, PL/SQL**, and Views using IBMDB2 for the database.

**Environment:** **JAVA J2EE, Spring MVC, Spring Security, Spring JDBC support and Hibernate, Hibernate Validations, JSTL, XML, HTML, CSS, JSP, JavaScript, PL/SQL, Ajax, MVC, MySQL**

**Education:** Bachelor of Technology, Computer Science, Jawaharlal Nehru technological University-Hyderabad, 2008.