**Mani deep Kumar Pusuluri**

***Sr Python Developer***

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**Summary:**

* Around 11 years of dedicated experience as a **Sr. Python Developer**, proficient in the entire Software Development Life Cycle (SDLC).
* Extensive expertise in web development using frameworks like **Django, Flask, and Fast API,** showcasing a deep understanding of backend technologies.
* Mastery of **Python**, **Django** **(5.0, 4.2, 3.2), Flask (3.0, 2.3), Fast API**, and core libraries
* Proficient in using the latest versions of Python packages, such as **NumPy, SciPy, Requests, matplotlib, Pickle, Pandas, PySide, wxPython, QT, PyGTK, PyTables, and Scikit-learn.**
* Experience in **AWS Cloud Computing** **services**, such as **EC2, S3, Lambda, API, DynamoDB, SNS, SQS, EBS, VPC, ELB,** **Cloud Watch, Security Groups, IAM roles, Cloud Front, EMR, Cloud logs**
* Solid grasp of front-end technologies, including **HTML5, CSS3, jQuery, JavaScript (ES6+), TypeScript, Vue.js, Angular, Bootstrap, and React.**
* Proficient in working with various databases such as **PostgreSQL, MySQL, DynamoDB, Oracle, and MongoDB,** demonstrating strong database management skills.
* Extensive experience in front-end development using **Angular and React frameworks**, spanning from version 2 in 2017 to the latest versions up to 2022.
* Played a key role in migrating legacy Java applications to modern Python-based stacks, ensuring smooth transition, and maintaining backward compatibility.
* Build back-end application with **Python, Django**, Worked on **Dockers**, and **Jenkins**.
* Good at writing **SQL Queries**, **Stored procedures, functions, packages, tables, views, triggers**.
* Experience in performing Data driven testing to validate the components displayed on the website/max portal using **Python Selenium WebDriver.**
* Excellent capability in **collaboration, coordination, escalation, quick learning, and adaptation**.
* Experience in developing **test automation framework** scripts using **Python Lambdas.**
* Experience in converting **Hive/SQL queries** into **Spark transformations** using **Spark RDD and PySpark concepts.**
* Adept in cloud platforms like **AWS** and **Azure**, with hands-on experience deploying and managing applications in cloud environments.
* Designed and implemented ETL workflows using **AWS Glue, Lambda, and Kinesis** for large-scale data processing.
* Skilled in building and consuming **APIs**, with experience in **GraphQL, RESTful APIs, Kafka, SOAP, and WSDL,** showcasing versatility in integration technologies.
* Proficient in testing frameworks including **PyUnit,** **Selenium, PyTest, and Mockito**, ensuring the delivery of high-quality and bug-free code.
* Experienced in working with various web servers such as **Nginx, WebLogic**, and utilizing infrastructure-as-code tools like **CloudFormation and Terraform**.
* Competent in automation tools like **Ansible and OAuth** for seamless deployment and secure authorization.
* Skilled in containerization and orchestration technologies such **as Docker, Kubernetes**, and OpenShift, with experience in building tools like **Maven, Gradle, Jenkins, and Azure DevOps**.
* Familiarity with IDEs such as **PyCharm, IntelliJ, and Eclipse**, along with data visualization tools like **Tableau.**
* Strong version control skills using **GIT, Bitbucket, and GitHub**; proficient in project management tools like **JIRA** and **Confluence.**
* Well-versed in **Agile, Scrum, and Kanban methodologies**, committed to **Test-Driven Development (TDD)**, ensuring efficient project delivery.
* Adaptability and versatility, showcasing the ability to quickly grasp new technologies and frameworks, ensuring a continuous learning mindset.

**Technical skills:**

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| --- | --- |
| **Programming & Scripting** | Python, Java, R, C, HTML, AngularJS, ReactJS, JavaScript, XML. |
| **Database** | Oracle, PostgreSQL, MongoDB, DB2, SQL Server, MySQL, Redshift. |
| **Python Frameworks & Libraries** | Django, Flask, Pandas, NumPy, Matplotlib, SciPy, Scikit-learn, NLTK, Plotly, PyTest and urlib2. |
| **NoSQL Databases** | HBase, Cassandra, MongoDB. |
| **IDE** | Eclipse, PyCharm, Jupyter Notebook, Visual Studio, Spyder. |
| **Tools** | Tableau, PowerBI, Informatica, Talend, Git, Jenkins, Docker |
| **Software Methodologies** | Agile, Waterfall, Scrum and SDLC. |
| **AWS** | EMR, Glue, Athena, Dynamo DB, Redshift, RDS, Data Pipelines, Lake formation, S3, SQS, SNS, IAM, CloudFormation, EC2, ELB/CLB. |
| **Azure** | Data Lakes, Data Factory, SQL Data warehouse, Data Lake Analytics, Databricks. |
| **Packages** | NumPy, Pandas, Matplotlib, SciPy, Scikit-learn, Seaborn, TensorFlow, Ggplot2, NLP. |

**PROFESSIONAL EXPERIENCE**

**Client: First Citizens Bank, (Raleigh, NC) Sept2024 to Present**

**Sr. Python Developer**

**Responsibilities:**

* Developed the application by following Agile methodology and Scrum method of project management.
* Developed web applications in **Django Framework's** **model view control (MVC) architecture** and manipulated databases by using **Django database API** along with **MySQL.**
* Developed and maintained backend services using **Python and Django**, leveraging **SDKs** for cloud services (e.g., AWS SDK, Google Cloud SDK).
* Initiated entire frontend and backend modules using **Python on Django Web Framework**.
* Developed REST based Application using **Python, Django, Angular 10**, Bootstrap, HTML, jQuery and Node.js by following W3C standards.
* Synchronized and tested many features for dashboard using **Flask, CSS** and **JavaScript**. Liaised backend of the application using the **flask framework.**
* Develop the existing application to enhance the features using Flask Framework and improve the performance using web services.
* Developed microservices using Flask exposed as **REST API** and integrated with AngularJS based web applications.
* Used **Pandas API** to put the data as time series and tabular format for east timestamp data manipulation and retrieval.
* Experienced in designing, developing, and optimizing **ETL/ELT pipelines** for large-scale data processing using **Python, PySpark, and SQL**.
* Created custom domain for API gateway and configured with VPC endpoint and load balancer.
* Advanced monitoring and established best practices around using **Elastic search.**
* Recommended remote integration with third party platforms by using RESTful web services. Automated Production tasks.
* Implemented code to perform **CRUD operations** on **MongoDB**using **PyMongo** module.
* **NLP File** Prep Settlement-Prepare files for review for Settlement.
* Developed and deployed large scale Machine Learning models to create personalized recommendations based on user’s data and invoice information.
* Developed an application for loading the geospatial data into AWS Aurora RDS.
* Used **Pandas, NumPy, sea born, Matplotlib, Scikit-learn, SciPy, NLTK** in **Python** for developing various **machine learning algorithms.**
* Designed and developed a horizontally scalable **FastAPI** using **Python Flask.**
* Built intelligent c**hatbots** utilizing generative **AI (GenAI)** models, resulting in a 40% improvement in customer support response times and user satisfaction.
* Implemented Gen AI-based document processing pipelines to extract and validate financial data from invoices, bank statements, and loan applications.
* Designed and managed **API system deployment** using fast http server and **Amazon AWS architecture.**
* Configured and designed **EC2 instances** in all the environments to meet high availability and complete security.
* Setting up the Cloud Watch alerts for EC2 instances and using Auto scaling launch configuration.
* Creating job flow using Airflow in Python language and automating the jobs. Airflow will have a separate stack for deploying DAGS(Directed Acyclic Graphs) and jobs run on **EKS or EC2 cluster.**
* Automated resulting scripts and workflow using Apache Airflow and shell scripting to ensure daily execution in production.
* Developed **GUI** using **Python and Flask** for dynamically displaying the test block documentation and other features of python code using a web browser.
* Using SQL Alchemy with Flask and Postgre SQL as database for developing the web application.
* Using **Spark** Technologies (Python and Scala) worked on Cleaning and Transformation of Data to serve Business Intelligence, Data Analysis and Customers.
* Using GO, developed a microservice for reading large volume of data(millions) from **PostgreSQL** database.
* Created Test Suite for Unit, Integration and CI/CD pipelines testing.
* Managed, developed and designed a dashboard control panel for customers and Administrators using Django, Oracle DB and used gitlab distributed version control tool to coordinate team development.

**Environment:** Python 3.11/3.9, Django 4.0, HTML5, CSS, XML, Flask, Pandas API, Kubernetes, Vue.js,MySQL, JavaScript, Angular 8/10, JQuery, CSS Bootstrap, RESTful, NLP, API gateway, Amazon s3, Jenkins, MySQL, Mongo DB, GitHub.

**Client: US Bank (Minneapolis, MN) Aug 2022-Sep2024**

**Sr. Python Developer**

**Roles & Responsibilities**

* Spearheaded the design and implementation of web applications using Python**, Django**, and **GraphQL**, ensuring robust and efficient functionality.
* Orchestrated **AWS** infrastructure, including **EC2, S3, CloudFront**, and Elastic Beanstalk, optimizing scalability, reliability, and performance.
* Implemented messaging solutions using AWS services like **SQS** and **SNS** to enable efficient communication between microservices.
* Utilized **AWS Glue** for **ETL** operations, ensuring seamless data transformation and integration across diverse data sources.
* Utilized Gradle for efficient build processes and dependency management in Java-based projects.
* Employed **Python and Django** to seamlessly interface with **jQuery UI**, overseeing the storage and deletion of content for improved user interaction
* Engineered web applications using **Flask** **frameworks**, adhering to the **MVC architecture**, ensuring scalable and maintainable codebases
* Designed and developed a horizontally scalable **FastAPI** using Python Flask.
* Implemented **ELK** (Elasticsearch, Logstash, Kibana) stack for centralized logging and monitoring, enhancing system visibility and troubleshooting capabilities.
* Analyzed **SQL** scripts and designed the solutions to implement using **PySpark**.
* Developed serverless functions using **AWS Lambda**, optimizing resource utilization and reducing operational costs.
* Implemented **OAuth** for secure user authentication and authorization in web applications.
* Designed responsive and visually appealing user interfaces using **Bootstrap, HTML, CSS, and JavaScript (EC6+).**
* Demonstrated proficiency in data analysis libraries such as **NumPy, Pandas, Matplotlib**, **Beautiful Soup** and Scikit-learn for informed decision-making.
* Developed prototype applications showcasing the potential of generative models (GenAI) in various industries, suchas content creation and chatbots.
* Used NumPy for Numerical analysis and Pandas library for statistical analysis, managing large datasets from Market View API.
* Experience working with Relational and **NoSQL databases**, including **SQL Server**, **AWS Redshift**, and **AWS DynamoDB**.
* Managed relational databases, including **RDS (MySQL)** and **NoSQL** databases like **DynamoDB**, ensuring data integrity and accessibility.
* Added support for **AWS S3** and **RDS** to host static/media files and the database into Amazon Cloud.
* Creating S3 buckets and managing policies for **S3 buckets** and Utilized S3 bucket and Glacier for storage and backup on AWS.
* Developed entire frontend and backend modules using Python on Django including **Tastypie Web Framework using Git.**
* Built all database mapping classes using **Django** models and **Cassandra**.
* Successfully migrated the **Django database** from **SQLite** to **MySQL** to **PostgreSQ**L with complete data integrity.
* Implemented Event-driven applications leveraging AWS serverless architecture using resources like **AWS Step Functions,** **Lambdas**, **AWS S3**, **Cloud Watch**, and SQS and used (S3-Lambda & SQS-Lambda Events to trigger).
* Used **Boto3** to interact with AWS services to automate tasks like Uploading, copying, downloading, and deleting files on AWS S3, Invoking Lambda functions.
* Automated configuration management using **Ansible**, enhancing system stability and consistency.
* Orchestrated containerization and deployment with **Docker and Kubernetes**, ensuring portability and scalability.
* Implemented automated testing with **PyUnit** and **Selenium, guaranteeing** the reliability and quality of the software product.
* Enabled AWS Managed Streaming for **Kafka** (**MSK**) for developers using Cloud Development Kit (CDK) in Python
* Utilized IntelliJ for efficient Python development and collaborated on code repositories using **BitBucket and JIRA**.
* Created insightful visualizations and dashboards using **Tableau** for effective data representation and analysis.
* Maintained version control using GIT, ensuring collaborative and organized development workflows.

**Environment:** Python, Django, GraphQL, jQuery, AJAX, AWS, MySQL, DynamoDB, Jenkins, CloudFormation,Lambda, OAuth, Bootstrap, HTML, CSS, ES6+, React, Ansible, Gradle, Docker, Kubernetes, PyUnit, Selenium, XML, XSLT, IntelliJ, BitBucket.

**Client: Humana (Fairfax, VA) Nov 2020 to Aug 2022**

**Sr. Python Developer**

**Responsibilities:**

* Participated in the entire lifecycle of the projects including Design, Development, and Deployment, Testing and Implementation and support.
* Experience in setting up **CI/CD pipelines** for Python applications using **Kubernetes.**
* Created a **Python, Django** web-based application using Python scripting for data processing and **MySQL** for database, **HTML5, CSS and jQuery** for data visualization
* Built different **Lambda functions** to handle webhooks and **API** requests
* Experienced in developing a web application using **Python, Docker, and Flask.**
* Experience developing and deploying applications using **Python scripting and AWS infrastructure**
* Utilized **SDKs** for monitoring and logging (e.g., AWS CloudWatch SDK) to enhance application observability.
* Developed and maintained **ETL** (extract, transform, and load) processes using Python and **RDS.**
* Designed and Developed User Interface using front-end technologies like **HTML5, CSS3, JavaScript, Bootstrap** and **JSON.**
* Proficient in **Python programming** language with **multi-threading**
* Hands-on experience with various **AWS technologies,** including **Lambda, EMR, Glue, Athena, and Step Functions.**
* Developed automated scripts using Python and RDS to streamline and optimize database operations.
* Used **PyCharm IDE** for developing various Python applications**.**
* Developed entire frontend and backend modules using **Python on Django** Web Framework.
* Provided GUI utilizing **PyQt** for the end user to create, modify and view reports based on client data.
* Designed and developed horizontally **scalable APIs** using **Django.**
* Using **Amazon EC2 command** line interface along with **Bash/Python** to automate repetitive work.
* Worked with View Sets in **Django-REST** framework for providing web services and consumed web services performing CRUD operations.
* Ability to troubleshoot, optimize and secure application**s in Docker and Kubernetes**
* Familiarity with **AWS services: Amazon S3** is just one of many **AWS services**, and having experience with it can demonstrate your familiarity with all of the **AWS services.**
* Ability to integrate third **party APIs** with existing applications through **PyCharm.**
* Developed a with performance and process enhancement of the **PySpark** framework.
* Developed **PySpark** programs and created the data frames and worked on transformations.
* Used **Test driven approach** for developing the application and implemented the unit tests using **Python Unit test** framework.
* Extensive knowledge of **Git and GitHub to develop, manage, and deploy projects**
* Wrote and executed various **MYSQL database** queries from **Python** using **Python-MySQL** connector and **MySQL dB package.**

**Environment**: Python, Django, AWS, Agile, Angular.js, JQuery, CSS3, DHTML, HTML5, JavaScript, Bootstrap, GitHub, Shell Scripts, Restful API, MySQL, LINUX, and Windows, AWS, Azure, and Google Cloud Platform(GCP), Docker, Ansible.

**Top of FormBottom of FormClient: Kroger Technology (Cincinnati, OH) Feb 2018 – Nov 2020**

**Sr. Python Developer**

**Responsibilities:**

* Responsible for gathering requirements, system analysis, design, development, testing and deployment.
* Participated in the complete **SDLC** process.
* Developed web-based open stack applications using **Python** and **Django** for large dataset analysis.
* Extensively used regular expressions and core features in Python using **lambda, map, reduce** etc. and effectively implemented logging feature using python logging library and profiling using profile.
* Written many programs to parse **excel** file and process many user data with data validations.
* Used **Subversion version control** tool to coordinate team-development.
* Developed tools to automate some base tasks using **Shell Scripting, Python**.
* Developed **Spark** code using Python for faster processing of data on **Hive (Hadoop)**.
* Developed **Map Reduce** jobs in Python for data cleaning and data processing.
* Used different type of transformations and actions in **Apache Spark.**
* Experience in writing custom User Defined Functions (UDF) in Python for **Hadoop (Hive and Pig).**
* Used Spark cluster to manipulate **RDD's** (resilient distributed datasets). And used concepts of **RDD partitions**.
* Connecting my SQL database through Spark driver.
* Having experience in **Agile Methodologies**, Scrum stories and sprints experience in a Python based environment, along with data analytics**, data wrangling** and Excel data extracts.
* Developed views and templates with Python and Django's view controller and templating language to create a user-friendly website interface.
* Worked under **DEVOPS** environment for continuous integration and continuous deployment using **Jenkins and puppet.**
* Configured and deployed project using the **Amazon EC2 on AWS.**
* Designed and developed data management system using **MySQL**. Involved in Agile Methodologies and SCRUM Process.
* Created **unit test/regression test** framework for working/new code.
* Using version control tool - **Git with Jenkins** to accumulate all the work done by team members.
* Using agile methodology - **SCRUM**, along with **JIRA** for project.
* Responsible for debugging and troubleshooting the web application.
* Participated in writing scripts for test automation.

**Environment:** Python 2.7, Django, C++, Java, jQuery, MySQL, Oracle 11.2, Linux, Django, Eclipse, Shell Scripting, HTML, XHTML, SVN, CSS, AJAX, Bugzilla, JavaScript, Apache Web Server, Apache spark, Git, Jenkins.

**Client: Global Atlantic (Boston, MA) Mar 2016 to Feb 2018**

**Python Developer**

**Responsibilities:**

* Designed and developed the server module, addressed issues, and managed enhancements.
* Architected and implemented backend development using **Python** and **Django**, with frontend development utilizing **React, Webpack, Redux, and ES6/7**, alongside **PostgreSQL** for the database.
* Utilized **Django** **ORM** for crafting complex queries.
* Performed load balancing for **ETL** processes and optimized database performance.
* Transferred data from **Teradata** to **HDFS** using Teradata Hadoop connector
* Defined **Django API** profiling techniques to enhance rendering speed.
* Managed application environments with **Ansible, Vagrant, and Docker**.
* Developed Python scripts to test car functionalities across different services.
* Implemented various form validation controls using Object-oriented JavaScript, including custom validation controls.
* Created and deployed **Restful Microservices** using **Flask and** **Django** on **AWS servers with EBS and EC2**.
* Designed user-friendly website interfaces with Django views and templates.
* Engaged in Java development/programming and managed **RabbitMQ queues.**
* Regularly imported data from **MySQL** to **HDFS** using **Sqoop**.
* Employed Circle CI for continuous integration and delivery, working with **GIT**.
* Utilized **Django** Migrations for database design and expansion.
* Automated daily tasks using **Python** scripting.
* Managed **CI/CD pipelines** to oversee weekly releases.
* Used Jira for task management and performance improvement.
* Advised the team on suitable testing techniques and shared testing tasks.

**Environment:** Python 2.7, AWS, DevOps, Django, Django Rest, Flask, React, Redux, Circle CI, Vagrant, Splunk, New Relic Server, GitHub, Ansible, HTML5/CSS, PostgreSQL, Ansible, Kubernetes, Amazon Web Service (AWS), S3, EC2, EBS,

**Client: Consumers Energy (Jackson, MI) APR 2014 to Mar2016**

**Python Developer**

* Collaborated with business units to gain a deep understanding of business lines, including business plans, products, and processes.
* Implemented user interface guidelines and standards during the development and maintenance of the website using **HTML, CSS, JavaScript, and jQuery**.
* Created APIs and developed full frontend and backend modules using Python on the **Django** Web Framework.
* Used Python scripts to update database content and manipulate files.
* Designed, implemented, and modified Python code and **MySQL database schemas** for backend operations.
* Installed and configured **Linux** with **Apache, Oracle, and PHP.**
* Developed GUI widgets using Python modules.
* Utilized Python OS module on **UNIX** for job **cloning and forking**.
* Wrote Python parsers to extract useful data from design databases.
* Managed internet security and acceleration across the network using **Microsoft's ISA server**.
* Employed third-party jQuery plugins like jQuery UI and DataTables, and heavily used JavaScript for form submission and other UI elements.
* Used **JMS API** for asynchronous communication by placing messages in the Message queue.
* Created domains, application servers, and load balancers using WebLogic 9.0.
* Designed extensive enhancements to existing Python web applications using **Service Oriented Architecture** (SOA) techniques.
* Debugged and troubleshot web applications.
* Implemented solutions under **Red Hat, Ubuntu**, and **Windows 7**, both locally and on **Cisco Cloud**.
* Profiled Python code for optimization and memory management.

**Environment:** Python, JavaScript, HTML, CSS, **Django**, jQuery, jQuery UI, DataTables,MySQL, OracleApache, PHP, WebLogic 9.0, Linux (Red Hat, Ubuntu), Windows 7, UNIX, JMS API, ISA Server,Service Oriented Architecture (SOA), Git.