VAMSHI ACHAVELLI

Python developer

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**PROFESSIONAL SUMMARY**

* Around **3 years** of experience as a Python Developer, possesses in-depth knowledge of technology trends and excels in Analysis, Design, Development, Testing, Implementation, and maintenance of various Web Applications using Python, Django, and the Bottle framework.
* Experienced in using MVC architecture using RESTful, Soap Web services and SoapUI and high-level Python Web frameworks like Django and Flask. Experience object-oriented programming (OOP) concepts using Python, Django, and Linux.
* Capable of building dynamic web applications using Python-based frameworks like Django and Flask, and proficient in integrating front-end technologies such as React JS and React Native for responsive and user-friendly interfaces.
* Well-versed in designing and developing the presentation layer for web applications using technologies like HTML5, CSS3, JavaScript, JQuery, AJAX, AngularJS, Bootstrap, JSON, and XML.
* Applied Agile and SCRUM methodologies effectively to streamline project development, ensuring collaborative, adaptable, and timely delivery of high-quality software solutions.
* Proficiently utilized NOSQL libraries like MongoDB, Cassandra, and relational databases like Oracle, SQLite, PostgreSQL, and MYSQL for various projects.
* Crafted Web Services using the Python programming language, with a deep understanding of Web Service protocols, including SOAP and REST.
* Proficiently integrated third-party APIs into applications, enhancing functionality and enabling seamless data exchange with external systems, establishing a track record of implementing both RESTful and SOAP-based APIs.
* Excelled in Docker containerization, efficiently creating and managing containers to maintain consistency across development, testing, and production environments. Orchestrated containerized applications with precision.
* Demonstrated extensive knowledge of SQL queries, effectively handling complex joins, subqueries, and optimizing query performance, leading to the design and fine-tuning of database queries for achieving optimal data retrieval and manipulation.
* Deployed applications on cloud platforms like AWS (EC2, ECS, S3, Cloud Formation, Redshift, SQS, and Terraform), optimizing scalability, reliability, and cost-effectiveness.
* Utilized DevOps tools like Jenkins, Git, and Ansible for enabling continuous integration, continuous delivery (CI/CD), and automation, resulting in accelerated development cycles and improved software quality.

**SKILLS**

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| **Programming** **Languages**: Python, SQL, Java, PHP, C#, C, C++  **Web Technologies**: HTML5, CSS3, JSON, Rest API, Bootstrap, JQuery, AJAX, React JS, React Native, JavaScript, XML  **Web** **Frameworks**: Django, Flask, Angular, Express, Node JS, Laravel  **Python Libraries:** NumPy, SciPy, Matplotlib, Pandas, SOAP  **Database:** MySQL, SQLite, Mongo DB, Oracle, Casandra, PostgreSQL  **Operating** **System:** Windows, Linux, and Mac  **Cloud** **Platforms**: AWS (EC2, ECS, S3, Cloud Formation, Redshift, SQS, Terraform), Google cloud platform.  **Methodologies**: Agile, SCRUM, Waterfall, TDD  **Big Data Tools & Others:** JIRA, Ansible, Eclipse, Jupyter, IntelliJ, Vs code, Apache spark, Apache Kafka  **Version** **Control** **Systems**: Git, GitHub, SVN  **Deployment** **Tools**: Jenkins, PyCharm, Docker, Kubernetes |
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**EDUCATION**

Masters: Computer Science May 2023

University of Texas Arlington, US

Bachelors: Computer Science Aug 2021

Lovely Professional University India

**EXPERIENCE**

Python Developer Jan 2023 to Current

Uber TX

* Orchestrated the development of complete frontend and backend modules using Python on the Flask Web Framework, resulting in a seamless user experience and a 25% boost in user engagement
* Employed Flask Model-View-Controller (MVC) architecture to blueprint and code Python applications, leading to a 30% improvement in maintainability and scalability
* Proficiently merged Python with diverse web development tools and web services, substantially enhancing application functionality and data accessibility, culminating in a 20% reduction in data retrieval time
* Executed a multitude of MYSQL database queries from Python, realizing a remarkable 30% enhancement in data retrieval efficiency and diminishing response times
* Crafted innovative Python scripts for data extraction from HTML files and JavaScript file, streamlining data processing and trimming processing time by 20%
* Implemented the PyUnit framework for demanding unit testing, yielding a substantial 25% decrease in post-release bug reports and cementing software reliability
* Took on the responsibility of refurbishing existing Flask modules, yielding a remarkable 40% enhancement in data formatting and presentation, consequently enhancing data clarity and improved user comprehension
* Ensured data security and compliance through the implementation of encryption, access controls, and auditing mechanisms, measures were meticulously aligned with industry standards and regulations, fortifying both data protection and regulatory compliance
* Engineered resilient RESTful APIs in Python, incorporating advanced features such as token-based authentication and rate limiting, yielding a 25% bolster in application security and dependability
* Leveraged Python and Flask to seamlessly interface with jQuery UI, resulting in an enhanced user experience and streamlined content management and leading 20% increase in user satisfaction
* Demonstrated proficiency with the AWS Cloud platform, encompassing hands-on experience with AWS services such as S3, EC2, IAM, CloudWatch, RDS, and Lambda, optimizing cloud resource utilization and reducing operational costs
* Collaborated with team members from diverse backgrounds to identify and resolve technical issues and roadblocks, ensuring smooth project progress and mitigating risks.

Python Developer Jun 2020 to Dec 2021

Adani India

* Effectively utilized data types like dictionaries, tuples, and object-based inheritance concepts to develop intricate algorithms for network-related tasks, resulting in a notable 20% improvement in data processing efficiency.
* Assumed a leadership role in constructing the database model, APIs, and views using Python, leading to a 30% surge in user engagement and data accessibility.
* Efficiently oversaw large datasets using Pandas data frames, trimming data manipulation and analysis time by 25%.
* Crafted views and templates using Django's view-controller-template language, forging a user-friendly and responsive web interface that heightened user satisfaction by 15%.
* Customized the Django admin site, created a unique Django dashboard tailored using HTML, CSS, and JavaScript to fulfill the distinct requirements of end-users, leading to a 40% improvement in administrative efficiency.
* Engineered functions, queries, cursors, triggers, and stored procedures for Oracle databases, optimizing data access and manipulation, which led to a 30% reduction in query execution time.
* Orchestrated server-side logic and data processing routines using Python to handle intricate network-related tasks, ensuring a 15% enhancement in back-end functionality and responsiveness.
* Efficiently queried databases using Python-PL/SQL connector, curbing data retrieval time by 20% and elevating overall system performance.
* Skillfully integrated third-party APIs and services, broadening the web application's capabilities and augmenting its feature set by 25%.
* Implemented Test-Driven Development (TDD) practices, leading to a remarkable 30% decrease in post-release defects by automating the execution of tests with each code commit in CI/CD pipelines.

Python Developer Intern Dec 2019 to May 2020

Neebal Technologies India

* Illustrated complex systems hierarchically in Python, establishing components and subcomponents, and engineered a suite of library functions tailored to user demands, amplifying system manageability and usability by 30%.
* Engineered Python APIs to capture and record array structures within the processor at failure points, streamlining debugging and troubleshooting processes, and curtailing issue resolution time by 40%.
* Developed and maintained a high-traffic web application using Python and Django, resulting in a 30% reduction in page load times through code optimization.
* Implemented a data caching mechanism, reducing database query times by 40% and improving system responsiveness.
* Created custom Python scripts for web scraping, collecting and analyzing market data, contributing to a 20% increase in revenue through improved decision-making.
* Employed Django frameworks and Python to produce dynamic webpages enriched with HTML, CSS, and JavaScript, delivering a seamless user experience that slashed bounce rates by 20%.

**ACADEMIC PROJECTS**

**Market Place for Students:** HTML5, CSS3, JS, React, AWS S3, EC2, IAM, Route 53, RDS, Cloud Watch, and LARVA.

* Created RESTful API layers using Python to handle user requests and interact with the AWS back-end services, Implemented the front-end user interface using HTML5, CSS3, JavaScript, React JS.
* Utilized AWS S3 for storing audio files and AWS Cloud Front for content delivery, optimizing performance and seamless retrieval of large data. Designed and implemented a secure user authentication system using AWS Cognito.

**Recipe Book:** Python, Django, AWS S3, EC2, IAM, Route 53, RDS, Spoonacular API.

* Developed the back-end functionality of the application using Python and Django, also deployed the application on AWS, leveraging services like EC2, S3, and RDS for scalability and reliability.
* Implemented product catalog features including browsing, searching and filtering of products based on different categories. Developed the shopping cart and checkout process, integrating with a secure payment gateway to handle transactions.

**Driver Drowsiness Detection:** CNN, OpenCV, CV2, Python, LSTM, Jupyter, Flask, and Heroku.

* Developed a Driver Detection utilizing CNN, integrating openCV and CV2 libraries for real-time analysis.
* Achieved a commendable 93% accuracy rate, demonstrating skillful application of deep learning, computer vision, and data manipulation techniques for critical safety solutions.

**Identification of pneumonia based on X-Ray using Deep Learning:** OpenCV, TensorFlow, VGG 16, ResNet, DenseNet

* Developed a pneumonia detection system using deep learning and CV techniques to analyze X-ray images, achieving an accuracy of 91% on a benchmark dataset.
* Leveraged transfer learning techniques with pre-trained models like VGG 16, ResNet, Dense Net to enhance model performance.