Pushkar Naral

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Summary of Experience

Seasoned software engineer with a wealth of experience spanning 5.4+ years, specializing in **Python, Django Rest Framework, Flask, ORM, MySQL, Elasticsearch, Node.js, AWS** and **Docker**. Demonstrated expertise in leading high-impact projects, showcasing proficiency in building resilient and scalable solutions. Possesses a solid foundation in backend development and data management, making a valuable contribution to complex and innovative software projects

Technical Skills

Programming Languages	:	Python, Javascript
Frameworks	:	Django REST Framework, Flask, Fast API, Node Js, K6 runner
Databases	:	Oracle SQL, MySQL, MongoDB, Duck DB
Search Engine	:	ElasticSearch
Version Control	:	GIT, BitBucket
Cloud and CICD	:	AWS EC2, SNS, SQS, Lambda, Nginx, Docker , Github Actions

Work Experience

GeoSpoc An OLA Company *(Software Development Engineer)* *Sep 2021- Present*

Project	:	OLA MAPs Places API
Technologies	:	Javascript, Python, Flask REST Framework, Fast API, AWS, microservice architecture, Docker, ElasticSearch , DuckDB , K6 runner, Pelias
Key Responsibilities	:	

- Worked on Places API project built on **Nodejs , Python , ElasticSearch** Indian based address using Places API and reverse geocoding API with 90+% accuracy against google maps API
- Worked on different types of data importers to ingest data into ElasticSearch in **Python, Fast API**, with the indexing speed of 200K-250K documents per minute
- Developed point-in-polygon and nearest street-lookup custom npm packages
- Improved **search relevancy** via building the **ElasticSearch Query** also optimized the Query time of ElasticSearch to reach the API latency of **50ms** at **P99** with different data indexing , sharding strategies of ElasticSearch
- Crafted **Python** and **DuckDB** test scripts, achieving 100,000 API calls within 7 minutes and ensuring accuracy.
- Built a **dockerized** environment using Nodejs Express framework / Python Flask framework and integrated with swagger for better API documentation also created multiple API's with asynchronous nature using celery worker and deployed on **AWS EC2**.
- Proficiently implemented various **GitHub Actions**, such as linters, unit test cases, and package publication to GitHub Registry, ensuring code quality and streamlined project workflows.
- Demonstrated expertise in performance and load testing by utilizing **k6 scripts** to ensure the robustness and scalability of applications

- Optimized the latency of a Python-based machine learning model and seamlessly integrated it into a Node.js API service for real-time predictions, enhancing overall system efficiency.
- Implemented a learning-to-rank **machine learning** model directly into **Elasticsearch**, significantly improving search functionality and relevance.
- Made **open source contribution** Pelias project by actively resolving bugs and issues within its **Docker** files, thereby enhancing its overall stability and reliability
- Spearheaded the redesign and implementation of a point-in-polygon service and street lookup system based on **geohash** technology in **Elasticsearch**, allowing for more granular and precise location information retrieval.
- Maintained meticulous technical documentation, encompassing programming specifications, functional outlines, and detailed technical designs, ensuring clarity and coherence in the development process.
- Responsible for task creation and assignment to junior team members, overseeing code review processes, and ensuring that their work adheres to established standards.
- Mentored and nurtured junior talents in Python, Django, Flask, and Pandas.

Buzzybrains software *(Software Developer - Python)* *Dec 2019 - Sep 2021*

Project : CleverGround (Education tech)
Technologies : Python, Django REST Framework, Mysql, AWS, Nginx

Key Responsibilities :

- Proficiently analyzed, designed, coded, and executed multiple critical modules within the application, showcasing a strong grasp of software engineering principles and methodologies.
- I successfully migrated an offline university system to an online platform, meticulously mapping its functionalities. Using the **Python Django REST framework with ORM,** I developed robust REST APIs now employed by renowned educational institutions in Pune, greatly enhancing academic operations.
- Successfully engineered a **video uploading and streaming microservice**, elevating the application's multimedia functionalities by leveraging the power of Python, AWS infrastructure, and the versatile FFmpeg tool. This feature significantly enhanced the user experience, particularly in the context of video lecture uploading and streaming.
- Demonstrated expertise in integrating cutting-edge video conferencing technologies, including **Zoom and Big Blue Button**, to facilitate seamless virtual interactions for live classes within the application.
- Maintained meticulous technical documentation, encompassing programming specifications, functional outlines, and detailed technical designs, ensuring clarity and coherence in the development process.
- Established distinct AWS server environments for quality assurance, development, and production, effectively segregating workflows and optimizing resource allocation.
- Proficiently handled the deployment of the application on **AWS servers,** utilizing **EC2 instances** to ensure robust performance and scalability in production.
- Proactively addressed technical challenges by leveraging advanced debugging techniques and employing coding solutions to troubleshoot and resolve issues promptly.

Project : Clique Log
Technologies : Python, Flask REST Framework, MongoDB, AWS, microservice architecture, Docker
Key Responsibilities :

- Led the end-to-end process of conceptualizing, architecting, coding, and deploying five distinct microservices, exhibiting strong proficiency in Python Flask development.
- Led the way in developing a range of microservices, cultivating smooth and efficient communication among them using an **AWS Simple Queue Service** (SQS) queue-based messaging system. These microservices were seamlessly integrated into a **Python-Flask** application, with **MongoDB** serving as the database backend..
- Drove quality assurance by methodically crafting unit test cases for all APIs, covering both synchronous and asynchronous functionalities.
- Maintained meticulous and comprehensive technical documentation, encompassing programming specifications, functional outlines, and detailed technical designs, promoting clarity and facilitating collaboration.
- Proactively resolved technical challenges through adept debugging and adeptly crafting solutions to address issues promptly.
- Swiftly responded to application issues by conducting thorough troubleshooting, analysis, and Root Cause Analysis (RCA) assessments, ensuring minimal downtime and optimal performance.
- Orchestrated the deployment of the application as an auto-scaling solution using **AWS Elastic Container Service (ECS)** and **Docker images**, guaranteeing seamless scalability and reliability.

Project : VOPA VSchool (free edu app currently used by 1.6 million students)
Technologies : Python, Django REST Framework, Mysql, AWS, Nginx

Key Responsibilities :

- Spearheaded the process of gathering client requirements and meticulously designing the application and database structures, ensuring alignment with project objectives.
- Maintained comprehensive and detailed technical documentation, encompassing programming specifications, functional overviews, and intricate technical designs, to foster transparency and facilitate collaborative development efforts.
- Took a lead role in the development of diverse APIs and modules in P**ython Django REST Framework, ORM and MySQL** tailoring them to meet specific project requirements, and consistently delivering high-quality solutions.
- Successfully orchestrated the creation of distinct AWS EC2 server environments and expertly managed the deployment of API applications and React applications, optimizing resource allocation and application performance.
- Proactively resolved technical challenges by applying effective debugging techniques and providing coding support to address issues promptly.
- Responded swiftly to application issues by conducting thorough troubleshooting, analysis, and Root Cause Analysis (RCA) assessments, ensuring minimal downtime and optimal application functionality.
- Contributed valuable insights and suggestions for the continuous improvement of operational processes and the enhancement of user interface applications and APIs, streamlining overall project efficiency

Gravity Business Services *(Software Developer - Python)* *May-2019 to Dec 2019*

Project : Invoicing and B2B Payment Solutions
Platform Environment : Python, Flask, AWS DynamoDB, Zappa, HTM5-CSS, GIT

Key Responsibilities :

- Conducted thorough analysis, designed, coded, and seamlessly implemented multiple modules within the application. Developed critical modules related to User Management, Payment Processing, Invoicing, and Administrative functions in accordance with business requirements, employing **Python-Flask** for efficient implementation.
- Expertly integrated a variety of domestic and international payment gateways, including **Stripe, Cashfree, and Instamojo**, enhancing the application's payment processing capabilities.
- Maintained comprehensive technical documentation, encompassing programming specifications, functional overviews, and detailed technical designs, ensuring clarity and facilitating collaborative development efforts.
- Designed and executed a serverless architecture for the project, optimizing resource utilization and scalability, and deployed it on AWS using Zappa, streamlining the application's operational efficiency.
- Proactively resolved technical challenges through skilled debugging and agile problem-solving techniques, ensuring seamless functionality and user satisfaction.

Parkar Consulting and Labs *(Graduate Trainee Engineer)* *June-2018 to Apr-2019*

Project : OneID (Provides real time information and analytics from telecom & entertainment)
Platform Environment : Python, Shell-scripting, Sensu**,** AWS

Key Responsibilities :

- Initiated the build kickoff script, which played a pivotal role in orchestrating the entire process. This script determined the most recent partition, executed PySpark jobs to generate links for various elements, and applied SHA hashing to the tables to enhance data security.
- Implemented a data management process that included purging outdated tables, transferring metrics to a dedicated metrics webpage on Atlassian Confluence, and uploading the final extracted tables to AWS S3 for downstream consumers' access.
- Additionally, I took charge of setting up and configuring a service monitoring tool, Sensu, to monitor the performance of different services. I also took the initiative to create automation and monitoring scripts in both Python and shell scripting languages, seamlessly integrating them with the service monitoring tool for streamlined service management and efficient issue resolution.
- Wrote Automation and Monitoring script in python and shell script and integration with service monitoring tool

Education

- 2013-2017 : B.E. in ENTC from MITCOE, Pune

Personal Details

Full Name : Mr. Pushkar Satish Naral
Gender : Male
DOB : 28th September 1995
Languages : English, Marathi, Hindi, Telugu