

## YASWANTHI PUTLUR

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### SUMMARY

Experienced Python Developer with 7+ years of expertise in diverse technical environments, focusing on application development, data engineering, and cybersecurity solutions. Proficient in Python programming with experience in frameworks like **Django, Flask, and FastAPI**, and skilled in debugging and troubleshooting complex applications. Demonstrated expertise in data analysis and visualization using **NumPy, Pandas, Matplotlib, Seaborn, and machine learning frameworks like Keras, TensorFlow, and NLTK**. Experienced in **relational databases (MySQL, MSSQL, PostgreSQL) and NoSQL databases (MongoDB, Redis)**, as well as cloud platforms like **AWS, Azure, and GCP** for deployment, infrastructure automation, and DevOps practices. Developed **CI/CD pipelines**. Skilled in designing and implementing **ETL pipelines**, developing secure **APIs**, and optimizing database performance for large-scale applications. Strong understanding of **data modeling**, performance tuning, and query optimization. Expertise in automation, scripting, and implementing Infrastructure as Code (IaC).

### TECHNICAL SKILLS

- **Programming Languages:** Python, Ruby, C, C++, C#
- **Web Technologies:** HTML5, CSS3, XML, Bootstrap, Spring Boot.
- **Databases:** SQL, MySQL, Oracle, MongoDB
- **Tools & IDEs:** Visual Studio, Eclipse, PyCharm, Xcode, PyTest
- **Python Libraries:** NumPy, Pandas, Matplotlib
- **Operating Systems:** Windows, Linux, macOS
- **Automation Tools:** Jenkins, Ansible, Docker, Kubernetes, Terraform
- **Cloud Services:** AWS (S3, EC2, Boto3, Amazon EMR), Google Cloud Platform
- **Certifications:** Microsoft Certified: Power BI Data Analyst Associate, AWS.

### WORK EXPERIENCE

**Python Developer**  
**Visa, Austin, TX**

**10/2023 to Present**

- Developing and enhanced secure applications using Python frameworks such as Django and Flask to build scalable and robust APIs, with a focus on cybersecurity best practices.
- Implemented backend systems leveraging Python, PostgreSQL, MongoDB, and RESTful APIs to ensure secure data transmission and storage in compliance with PCI DSS and other industry standards.
- Built automation pipelines utilizing tools like Jenkins, Docker, and Kubernetes to streamline code deployment and enhance CI/CD workflows within cybersecurity projects.
- Designed and coded Python scripts to analyze and detect anomalies in network traffic, enabling proactive identification of potential threats.
- Created ETL pipelines for data extraction, transformation, and loading, specifically tailored for security log data from tools such as AWS CloudTrail, Snowflake, and Vertica, ensuring real-time insights into potential vulnerabilities.
- Developed secure microservices architecture using AWS Lambda and Kafka for cybersecurity threat analysis, ensuring scalable and reliable processing of security events.
- Led the integration of AI/ML models using NumPy, Pandas, and Scikit-learn for predictive threat detection, enabling the organization to stay ahead of emerging cyber risks.
- Architected and deployed logging solutions with tools like PySpark and Airflow, optimizing data flow for security alerts and compliance reporting.
- Collaborated with cross-functional teams to design cybersecurity dashboards using React.js, Flask, and REST APIs, offering actionable insights for monitoring and mitigation efforts.
- Debugged and optimized codebases, improving the performance of cybersecurity tools by identifying and resolving critical bottlenecks in log analysis and monitoring systems.
- Enhanced code security by implementing rigorous unit testing frameworks such as PyTest and PyUnit and adhering to secure coding guidelines.
- Participated in threat modeling sessions, leveraging technical expertise to identify and mitigate vulnerabilities in software design and deployment pipelines.
- **Environment:** Python, Flask, Django, REST APIs, AWS (Lambda, EC2, S3), Docker, Kubernetes, Kafka, Jenkins, PySpark, Snowflake, PostgreSQL, MongoDB, Vertica, Airflow, Agile/Scrum Methodologies.

**Software Developer**  
**Infosys, Boston, MA**

**03/2022 to 09/2023**

- Developed and maintained Python-based microservices for enterprise-scale applications, ensuring high performance and reliability.
- Worked on distributed message-passing systems using Kafka to integrate microservices with external systems seamlessly.
- Designed and managed scalable databases across relational (Oracle, SQL Server) and NoSQL (MongoDB, Cassandra) platforms.

- Built Python-based ETL pipelines for processing large-scale data, integrating multiple data formats such as JSON, CSV, and Hive ORC files. Optimized Hive queries and Python Spark (PySpark) applications to improve system performance and reduce latency.
- Automated AWS S3 monitoring processes with Python-based AWS Lambda functions, reducing manual overhead.
- Created infrastructure-as-code (IaC) templates using Terraform for provisioning staging and production environments in AWS Cloud. Worked with Kubernetes and Helm to containerize and orchestrate deployments for distributed applications.
- Contributed to CI/CD pipelines by implementing automated test frameworks using Jenkins and GitHub Actions.
- Led the development of Python automation scripts for data ingestion and transformation pipelines, improving efficiency by 40%.
- Integrated and managed GraphQL-based APIs using Apollo GraphQL for backend services with over 50 NoSQL clusters.
- Implemented and optimized Hadoop MapReduce and Hive/Pig scripts to enhance performance for large-scale data pipelines.
- Provided backend development expertise with frameworks such as Django and Flask for scalable and secure web applications.
- Wrote Ansible playbooks with Python for configuration management and automated deployment of AWS EC2 instances.
- Maintained secure and scalable AWS environments, including EC2, ELBs, S3, and RDS, while enforcing role-based access controls. Worked on improving code quality and version control by utilizing GIT and following best practices in versioning and collaboration.
- **Environment:** Python, JavaScript, Django, Flask, Next.js, AngularJS, AWS, Terraform, Jenkins, Ansible, Puppet, MongoDB, Cassandra, Oracle, SQL Server, Hadoop, PySpark, Hive, Pig

## Software Developer O'Reilly Auto Parts, India

01/2021 – 02/2022

- **Web Application Development:** Designed and developed internal auxiliary web applications using Python's Django framework, enhancing the efficiency of business operations. Collaborated with front-end technologies such as Angular, React, and Next.js, along with Bootstrap CSS/HTML, to create responsive, user-friendly interfaces for viewing and managing product catalogs and inventory data.
- **Version Control and Collaboration:** Leveraged Git for version control and collaborative development, following object-oriented programming principles to ensure scalability and maintainability of code.
- **Database Management:** Built and optimized SQL queries for the development of a Business Intelligence (BI) portal that provided actionable insights into sales and inventory data. Maintained and enhanced MySQL databases to support the integration of new features and improvements in reporting dashboards.
- **Cloud Deployment:** Configured and deployed applications on Amazon Web Services (AWS), utilizing services like EC2, S3, and Lambda for seamless application hosting and data processing. Automated deployment processes, improving system uptime and reducing manual efforts.
- **Data Analysis and Manipulation:** Utilized NumPy to create and manipulate tabular data, enabling efficient timestamp-based data handling for sales trend analysis. Processed and aggregated large datasets for management reporting, improving data accuracy and accessibility.
- **Secure Data Handling:** Implemented enterprise-level tokenization services to tokenize and encrypt sensitive customer and business data before archival in AWS S3, ensuring compliance with data protection regulations.
- **Software Development Lifecycle (SDLC):** Actively participated in all phases of the SDLC, including requirements gathering, modeling, analysis, and development. Collaborated with cross-functional teams to define technical requirements and deliver high-quality solutions that met business objectives.
- **Redis Integration:** Developed and maintained Redis-based caching mechanisms to enhance application performance by reducing database query loads, resulting in faster response times for end users.
- **Customer Support and SDK Development:** Supported internal teams with SDK usage and design-related queries. Delivered technical documentation and high-quality collateral for in-house tools and APIs, improving the adoption and usability of developer resources.
- **API Development:** Designed and implemented RESTful APIs for integration with third-party systems and internal applications, ensuring efficient communication between systems.
- **Automation and Deployment:** Automated routine deployment tasks using Python scripts, streamlining processes and reducing operational overhead.
- **Mentorship and Collaboration:** Worked closely with junior developers, providing mentorship on Python programming best practices and fostering a collaborative work environment.
- **Environment :** Python, JavaScript, Django, Angular, React, Next.js, Flask, MySQL, Redis, AWS (EC2, S3, Lambda). Git, PyCharm, NumPy, Jenkins, RESTful APIs, Object-Oriented Programming (OOP), SDLC, Data Security, Tokenization

## Python Developer Snapdeal, India

12/2017 – 12/2020

- **Requirement Analysis and Architecture Design:** Collaborated with cross-functional teams to analyze, document, and design solutions that adhered to J2EE standards. Ensured the architecture aligned with business needs and was scalable for future enhancements.
- **Web Application Development:** Designed, developed, tested, and deployed websites and applications using Python and Django Framework, ensuring robust backend performance and seamless integration with the frontend. Developed entire frontend and backend modules that enhanced user experiences and improved operational workflows.
- **UI/UX Development:** Designed and implemented user interfaces using HTML, AJAX, CSS, and JavaScript. Ensured responsive, accessible, and visually appealing designs for optimal user engagement.

- ❑ SQLAlchemy Integration: Utilized SQLAlchemy for efficient database interactions, enabling complete access to SQL databases and ensuring data integrity during operations.
- ❑ Data Management: Designed and developed data management systems with MySQL, executing complex queries for data extraction, storage, and analysis. Automated data processing pipelines to streamline workflows.
- ❑ XML Parsing and Data Loading: Wrote Python scripts to parse and extract data from XML documents, facilitating smooth data integration and migration into databases.
- ❑ Real-Time Dashboard Creation: Developed dynamic dashboards for executive use by integrating Logstash, Graphite, ElasticSearch, Kibana, and Redis. These dashboards provided actionable insights into sales and customer behavior.
- ❑ Dynamic Data Generation: Automated property list generation for applications using Python scripts, significantly reducing manual efforts and operational delays.
- ❑ System Migration: Led the migration of legacy systems to Jira databases using Python scripts. Verified and ensured data accuracy throughout the transition, minimizing downtime and errors.
- ❑ Cross-Functional Analysis and Design Guidance: Analyzed various cross-functional applications and provided strategic guidance for scalable architectural designs that aligned with Python best practices.
- ❑ Time Series and Data Manipulation: Employed the Pandas API to organize and analyze time-series data, facilitating accurate timestamp-based data manipulation and trend analysis.
- ❑ Test-Driven Development (TDD): Adopted TDD methodologies to develop, test, and maintain applications. Implemented robust unit tests using Python's unittest framework to ensure code quality and reliability.
- ❑ HTML Parsing with PyQuery: Used PyQuery to select and manipulate DOM elements efficiently, optimizing data extraction workflows.
- ❑ RESTful Services Development: Designed and maintained JSON-based RESTful web services for seamless integration with third-party APIs and internal applications.
- ❑ AWS Deployment and Linux Automation: Deployed web applications on AWS using Linux servers with Bash scripting. Automated repetitive server maintenance tasks, enhancing system stability and developer productivity.
- ❑ **Environment** : Python, JavaScript, Django, Angular, React, Next.js, Flask, MySQL, Redis, AWS (EC2, S3, Lambda).Git, PyCharm, NumPy, Jenkins, RESTful APIs, Object-Oriented Programming (OOP), SDLC, Data Security, Tokenization

## EDUCATION

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**Master of Science in Data Analytics**, Indiana Wesleyan University, Indiana,USA

**Bachelor of Technology in Data Science**, Presidency University