



FERILION LABS



PYTHON DEVELOPMENT

HAND BOOK

FERILION LABS PVT. LTD.

Dream - Create - Achieve



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Our Mission & Vision

At Ferilion Labs, our mission is to empower individuals to unlock their full potential and achieve career excellence through innovative educational technology. We are dedicated to revolutionizing the way people learn and upskill, ensuring that everyone has the opportunity to thrive in today's dynamic professional landscape.

Empowering Growth Through Education

At the core of our mission is the belief that education is the catalyst for personal and professional growth. We are committed to creating a transformative learning experience that equips individuals with the skills, knowledge, and confidence needed to excel in their careers.

Innovative Edutech Solutions

Ferilion Labs is driven by innovation. We leverage cutting-edge educational technologies to provide engaging, interactive, and personalized learning journeys. By combining expert content with immersive learning methods, we make upskilling an exciting and effective endeavor.

Tailored Learning for Real-world Success

Understanding that each individual's journey is unique, we offer tailored learning paths that cater to diverse learning styles, preferences, and career goals. Our curated courses are designed by industry experts, ensuring that the skills acquired are not only relevant but also immediately applicable in the workplace.

Building Confidence and Success

We are committed to building not only technical skills but also the confidence needed to navigate and thrive in the professional world. Our mission is to empower individuals to take charge of their careers, seize opportunities, and achieve the success they deserve.



Opportunities with us

Ferilion Labs offers a spectrum of exciting opportunities across various job roles, each contributing uniquely to our mission of reshaping education and empowering individuals. You'll be at the forefront of creating engaging and impactful professional experiences, collaborating with experts to craft the course of your career.

- **Python**



- **Java, J2EE**



- **Data Engineering**



- **Business Analyst**



- **Data Science**



- **Cloud: AWS/Azure/GCP**



- **VMware**



- **Automation Testing**
(Selenium with Java/Python)



- **Oracle(SQL, PLSQL)**



What industry expects from You

Tech Stack

Python, Django, Flask

SQL, Web Services

Cloud : AWS / Azure

Docker, Kubernetes

Expertise

- Robust
- Familiar
- Adequate
- Basic

Know Your Role

Why learn Python?

Python is easy to learn and read, even for beginners with no prior programming experience. Python is a versatile language that can be used for a wide variety of tasks. Python has a large and active community of developers, which means there are many resources available to help you learn and use the language. Python is a popular language for data science, machine learning, and artificial intelligence, which are some of the fastest-growing fields in tech.

- **Web Developers:** Web developers utilize Python frameworks like Django and Flask for building robust and scalable web applications, implementing backend logic and RESTful APIs .

- **Data Scientists:** Data scientists leverage Python's extensive libraries like Pandas, NumPy, and SciPy for data manipulation, analysis, and visualization, and build and deploy machine learning models using frameworks like TensorFlow and PyTorch, supported by Python's ecosystem.
- **Machine Learning Engineers:** Machine learning engineers develop and train machine learning algorithms and models using Python's rich ecosystem of libraries and frameworks, and use Python for preprocessing data, feature engineering, model evaluation, and deployment in production environments.
- **Data Analysts:** Data analysts perform data exploration, transformation, and analysis using Python's libraries like Pandas, Matplotlib, and Seaborn, and generate insights and visualizations from data to support business decisions and strategies.
- **Full Stack Developers:** Full stack developers employ Python for both frontend and backend development, using frameworks like Django for backend logic and Flask for lightweight APIs, and implement dynamic and interactive user interfaces using frontend frameworks like React or Angular, connected to Python backend servers.
- **DevOps Engineers:** DevOps engineers automate infrastructure provisioning, configuration management, and deployment pipelines using Python scripting and tools like Ansible or Terraform, and monitor and manage cloud resources and services with Python libraries and APIs provided by cloud providers like AWS, Azure, and Google Cloud Platform.

Benefits of learning Python over other languages

- **Clear Syntax:** Python's syntax is straightforward and easy to read, making it accessible for beginners and facilitating collaboration among developers.
- **Rich Ecosystem:** Python boasts a vast ecosystem of libraries and frameworks for various tasks, reducing development time and effort by providing pre-built solutions.
- **Community Support:** Python has a large and active community of developers who contribute to its growth, provide support, and share knowledge through forums and resources.
- **Portability:** Python code can run on different operating systems without modification, making it easy to develop cross-platform applications.
- **Scalability:** Python scales well from small scripts to large applications, making it suitable for projects of all sizes.
- **Readability:** Python emphasizes code readability, with a syntax that closely resembles natural language, making it easier to understand and maintain codebases.
- **Interpreted Language:** Python's interpreted nature allows for rapid development, testing, and debugging without the need for compilation.
- **Integration Flexibility:** Python can easily integrate with other languages and platforms, enabling developers to leverage existing code and libraries.
- **Abundance of Job Opportunities:** Python's popularity in the industry has led to high demand for Python developers, creating numerous job opportunities and career paths.

Course Structure

Python

1. Variables
2. Operators
3. Data Types
4. Keywords
5. Decision Making
6. Loops, Control Statements
7. Data Structures, Algorithms
8. Functions
9. Modules & Packages
10. OOp's

Advanced Python

1. Exception Handling
2. Files I/O
3. Decorator
4. Iterator vs Generator
5. DataBase Interaction
6. Python 2.X vs 3.X
7. Regular Expressions
8. Debugging PyDev Debugger
9. Networking
10. Date Time
11. Mutli Threading
12. Unit Testing

Web Application

1. Django
2. Flask
3. Fast API
4. Rest API

Real - Time Training

1. GIT, SourceTree
2. HTML, Javascript, CSS Basics
3. MySQL / Postgresql / MongoDB
4. SDLC Agile, Scrum methodology
5. Linux
6. Unit Testing
7. Pytest, Mock
8. Putty, WinSCP
9. Bitbucket, Confluence, Jira, Bamboo
10. Environments local, DEV, TEST, UAT, PROD
11. Project Types: Dev, Release, Support
12. Docker, Kubernetes
13. Cloud Basics: Azure

Numpy

Pandas

Real Time Tools

Python, here's how each of these real-time tools can be beneficial:

- **Linux:** Python is widely supported on Linux systems, and many data engineering tasks are performed using Python scripts on Linux servers. Understanding Linux commands and shell scripting can help data engineers navigate and manage Linux environments efficiently.
- **Git:** Python projects often leverage Git for version control, including libraries, scripts, and data pipelines. Learning Git enables data engineers to contribute to Python projects, collaborate with team members, and manage changes to codebases effectively.
- **Jira:** While Jira is more commonly associated with software development, it can also be used for managing data engineering tasks and projects. Data engineers can use Jira to track issues, plan sprints, and organize tasks related to Python-based data projects.
- **Agile/Scrum:** Agile principles and Scrum methodologies can be applied to Python-based data engineering projects to improve collaboration, adaptability, and project delivery. Agile practices encourage iterative development, continuous feedback, and teamwork, which are valuable in Python-centric data environments.
- **Bitbucket:** Think of it as a place to store and manage your team's code. It helps developers collaborate on projects, track changes to code, and manage versions of software.
- **Kafka:** Picture a system that allows different parts of your software to communicate with each other in real-time. Kafka is like a messaging platform that helps handle large streams of data efficiently, enabling applications to react to events as they happen.
- **Docker:** Docker helps package applications and their dependencies into containers. It makes it easy to build, ship, and run applications consistently across different environments.
- **Kubernetes:** Kubernetes manages those containers at scale, automating tasks like deployment, scaling, and managing containerized applications. It ensures that your applications run smoothly and reliably, even as they grow in complexity and scale.

Career Prospects

As a Python development professional, you possess a versatile skill set that opens doors to a variety of exciting career paths within the technology industry. Here are some potential avenues you may consider exploring:

- **Web Application Developer/Engineer:** Python is widely used in web development frameworks like Django and Flask, making it an excellent choice for building robust and scalable web applications.
- **Data Scientist/Data Analyst:** Python's extensive libraries for data analysis, such as Pandas and NumPy, along with its flexibility and ease of use, make it a preferred language for data scientists and analysts.
- **Machine Learning Engineer:** Python's extensive ecosystem of machine learning libraries, including TensorFlow, PyTorch, and scikit-learn, makes it the language of choice for developing and deploying machine learning models.
- **Full Stack Developer:** Python can be used for both backend and frontend development, making it suitable for full stack development when combined with frameworks like Django for backend and libraries like Flask or Django REST Framework for building APIs.
- **DevOps Engineer:** Python is commonly used for automation, scripting, and infrastructure management tasks in DevOps practices, thanks to libraries like Fabric and Ansible.
- **Quality Assurance Engineer:** Python's testing frameworks such as pytest and unittest make it a valuable tool for writing automated tests and performing quality assurance tasks.
- **System Administrator:** Python is frequently used for system administration tasks, automation, and scripting, making it easier to manage and maintain systems efficiently.
- **Testing:** Python's testing frameworks, as mentioned earlier, make it well-suited for writing and running automated tests across various stages of the development process.
- **Game Developer:** While Python is not typically the primary language for game development, it can be used for scripting, prototyping, and developing game logic in certain game engines like Unity or Pygame.
- **Cybersecurity Analyst:** Python is widely used in cybersecurity for tasks such as network scanning, vulnerability assessment, and penetration testing, thanks to libraries like Scapy and tools like Metasploit.

Success Stories

Ferilion Labs was launched in June 2023. We have started this to pursue our goal of providing training in high-demand programs in a simulated corporate environment. Having placed over 90+ candidates in last 6 Months with 100% Placement Rate and 96% Survival Rate in illustrious companies through Ferilion Labs and 700+ closures in the last 4 years with a 100% Placement Rate and 88% Survival Rate from previous training and placement experiences, we took a leaf from the old book in helping bridge the skill gap that is prevalent in the IT world.

Trainees with 4+ years of Experience



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Congratulations!

17 **LPA**
Annual CTC

Vignesh

Graduation: M.Sc (Physics), 2019.
Bangalore, Karnataka.
Work Location: Bangalore



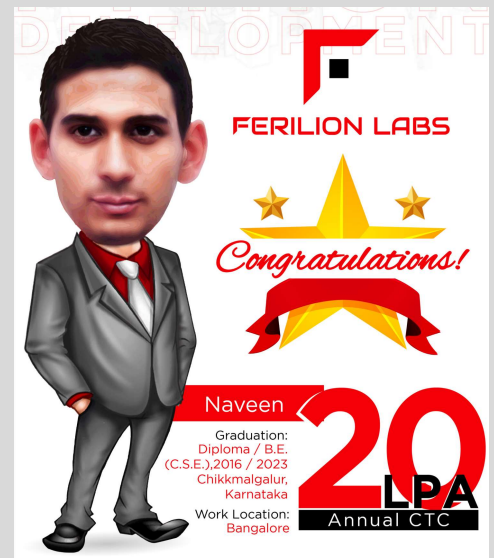
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19 **LPA**
Annual CTC

Navya

Graduation: B.E. (C.S.E.), 2016
Hassam, Karnataka.
Work Location: Bangalore



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20 **LPA**
Annual CTC

Naveen

Graduation: Diploma / B.E. (C.S.E.), 2016 / 2023
Chikkmalgalur, Karnataka
Work Location: Bangalore

Trainees with 3+ years of Experience



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13.2 **LPA**
Annual CTC

Kaustuv

Graduation: B.Sc (Physics), 2019.
Bhadrik, Odisha.
Work Location: Mumbai



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14.25 **LPA**
Annual CTC

Rachana

Graduation: B. Tech (EEE), 2019
Bidar, Karnataka
Work location: Bangalore



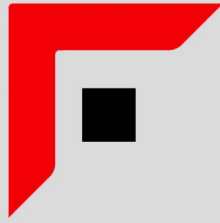
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Congratulations!

15 **LPA**
Annual CTC

Kavitha

Graduation: B.E (CSE), 2013.
Bangalore, Karnataka.
Work Location: Bangalore



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Contact Us

Join us at Ferilion Labs and embark on a journey of limitless possibilities. Together, we're shaping careers, transforming lives and creating a brighter future through the power of education.



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Google location and reviews



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