



Where and How Python is used?

PYTHON IN the INDUSTRY

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About

SohamGlobal is a leading technology consulting, development, and training firm committed to empowering organizations and individuals through advanced technology solutions and skill-building initiatives. With over two decades of industry presence, we have earned a reputation for delivering high-quality services that bridge the gap between innovation and practical implementation. As a proud Microsoft Partner, SohamGlobal ensures that businesses stay future-ready by leveraging cutting-edge tools and platforms.

Vision

To be a trusted global partner in digital transformation by providing state-of-the-art technology solutions and world-class training that enable businesses and individuals to thrive in the digital era.

Why SohamGlobal?

- Over 25 Years of Industry Excellence
- Certified & Experienced Team
- Customized and Scalable Solutions
- Microsoft Partner Advantage
- Global Clientele Across Diverse Sectors

Python

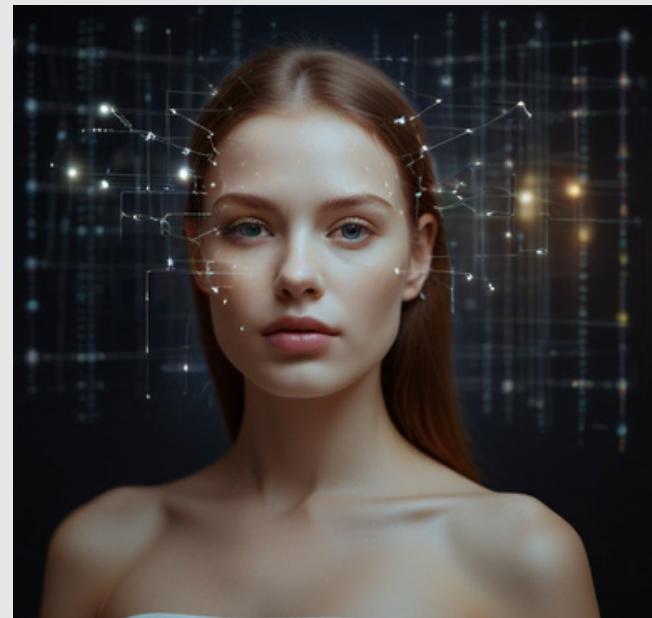
Intro

Python is a high-level, easy-to-learn programming language known for its simple syntax, versatility, and powerful libraries. It is widely used across industries for web development, data science, machine learning, automation, and more. Its strong community support and rich ecosystem make it ideal for beginners and experts alike. Today, Python powers technologies in top companies like Google, NASA, Netflix, and JP Morgan. Its dominance in AI, scientific computing, and automation makes it one of the most in-demand languages globally.



Global Popularity

- #1 in TIOBE Index (2025)
 - most popular programming language worldwide.
- Top Language on GitHub for contributions, repositories, and stars.
- Stack Overflow Developer Survey (2024): One of the most loved and most wanted languages.



Our Services



Custom
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Certification

Interview and
job prep

Finance & Banking

Companies

- JPMorgan Chase
- Goldman Sachs
- Bank of America
- Citigroup
- PayPal

What Python Does

- Algorithmic trading
- Risk analysis and modeling
- Fraud detection
- Automated reporting
- Data visualization and dashboards

Contribution to Success:

Python's ability to process large datasets and model risk quickly enables faster decisions, enhances fraud detection systems, and improves customer service through intelligent chatbots.

Internet & Tech Giants

Companies

- Google
- Facebook (Meta)
- Amazon
- Netflix
- Microsoft

What Python Does

- Machine learning and AI models (TensorFlow, PyTorch)
- Backend APIs (Flask, Django)
- Web scraping and crawling (Google indexing)
- Automation and scripting
- Data science and experimentation (A/B Testing)

Contribution to Success:

Python accelerates innovation with quick prototyping, powers recommendation engines (e.g., Netflix), and enables scalable AI pipelines (e.g., Google's voice and search tools).

E-Commerce

Companies

- Amazon
- eBay
- Alibaba
- Flipkart
- Shopify

What Python Does

- Customer behavior prediction
- Recommendation systems
- Dynamic pricing engines
- Inventory forecasting
- Chatbots for customer support

Contribution to Success:

Python empowers these platforms to create personalized experiences and optimize logistics, leading to higher conversions and customer satisfaction.

Healthcare & Biotech

Companies

- Pfizer
- Johnson & Johnson
- Roche
- Siemens Healthineers
- Philips Healthcare

What Python Does

- Genomic data analysis (BioPython, SciPy)
- AI-based diagnostics
- Medical imaging (OpenCV, PyTorch)
- Clinical trial analytics
- Healthcare data processing

Contribution to Success:

Python reduces research time in drug discovery, increases accuracy in diagnostics, and supports secure, compliant health record processing.

Automotive

Companies

- Tesla
- BMW
- Ford
- Toyota
- Volkswagen

What Python Does

- Autonomous vehicle software
- Simulation and modeling (Robot Operating System)
- Predictive maintenance
- Embedded systems testing
- Supply chain optimization

Contribution to Success:

Python is integral to ADAS (Advanced Driver Assistance Systems), self-driving tech, and faster prototyping, giving these firms a tech edge.

Aerospace & Defense

Companies

- NASA
- SpaceX
- Lockheed Martin
- Boeing
- Raytheon Technologies

What Python Does

- Simulation of spacecraft dynamics
- Satellite image processing
- Engineering modeling
- Ground station automation
- Scientific computing (SciPy, NumPy)

Contribution to Success:

Python helps with real-time control systems, automates launch simulations, and facilitates research modeling.

Gaming

Companies

- Electronic Arts (EA)
- Ubisoft
- Blizzard Entertainment
- Riot Games
- Zynga

What Python Does

- Game logic scripting
- AI for NPCs (non-player characters)
- Build automation
- Level generation
- Server management

Contribution to Success:

Python accelerates game development, supports dynamic world creation, and manages large user loads effectively.

Education & EdTech

Companies

- Coursera
- edX
- Khan Academy
- Byju's
- Udemy

What Python Does

- Content recommendation
- Performance analytics
- Backend services
- Interactive coding environments (Jupyter)
- AI tutors and chatbots

Contribution to Success:

Python enables scalable and personalized learning systems, empowering millions with smart, adaptive education.

Media & Entertainment

Companies

- YouTube
- Spotify
- Netflix
- Disney+
- HBO Max

What Python Does

- Recommendation engines
- Content tagging and classification
- Subtitle generation
- Usage analytics
- Automation of production pipelines

Contribution to Success:

Python helps these platforms deliver personalized, high-speed streaming with intelligent content management.

Manufacturing & Industrial IoT

Companies

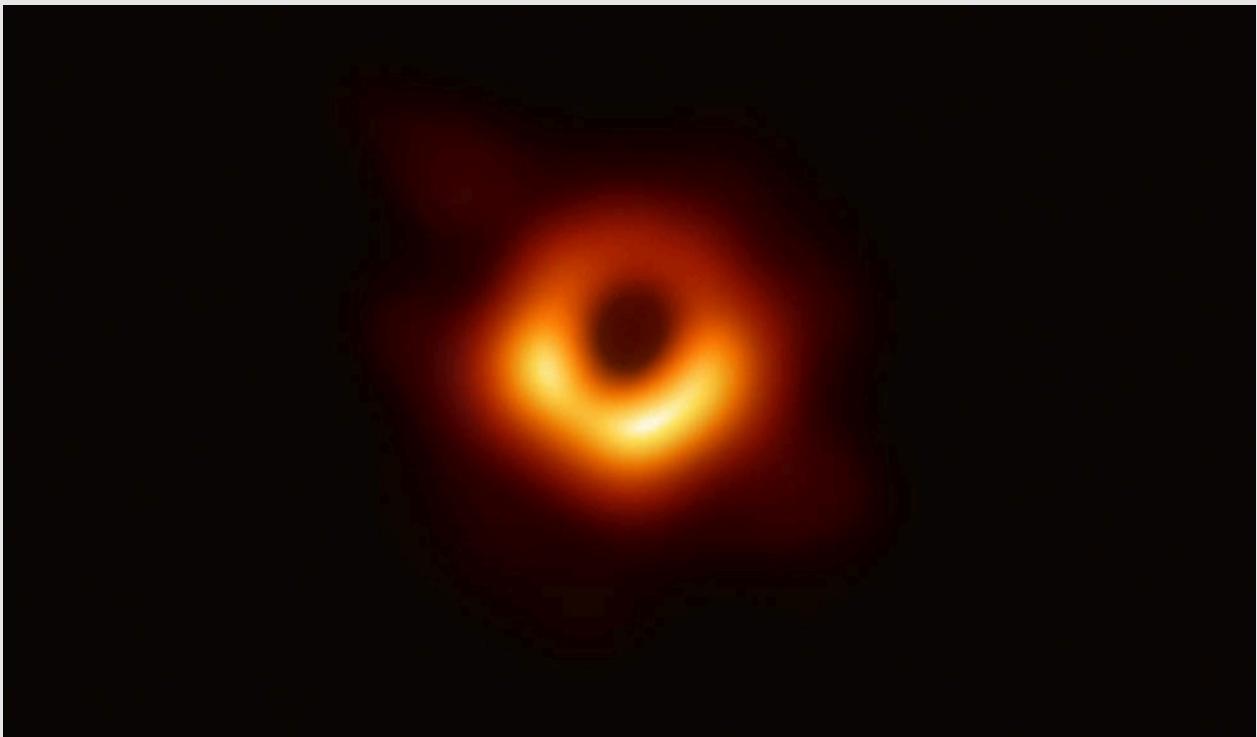
- GE
- Honeywell
- Schneider Electric
- Siemens
- ABB

What Python Does

- Predictive maintenance
- Process automation
- Real-time analytics on sensor data
- IoT device communication
- Robotics programming

Contribution to Success:

Python improves operational efficiency and helps prevent breakdowns by integrating data science and IoT systems.



The first-ever image of a black hole, revealed on April 10, 2019, was a historic scientific milestone achieved by the Event Horizon Telescope (EHT) collaboration. It captured the black hole in the center of the galaxy M87, located 55 million light-years away.

Programming Tools Used to Generate the First Black Hole Image

PYTHON

Used for:

- Data handling and pre-processing
- Simulations and modeling (e.g., using NumPy, SciPy, Astropy)
- Pipeline automation
- Data visualization (Matplotlib, Seaborn)

Why Python:

Its simplicity, versatility, and huge scientific ecosystem made it ideal for processing petabytes of data.

Resume Tips

- Give a brief resume
- Show your presentation
- Discuss your research job
- Study presentations
- Start reading papers online through online reports

Coding Interviews

- Prepare under coding interviews.
- Prepare courses for IT jobs
- Note with coding interviews.



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