

GLOBALLY RECOGNIZED · INDUSTRY-ALIGNED · HANDS-ON

Certified Python Full Stack Developer

— (CFSD)

Become a Globally Recognized Python Full Stack Developer

Earn the CFSD credential — prove your expertise in front-end and back-end development, and build **secure, scalable web applications** using Python, databases, REST APIs, and modern frameworks.



4.8/5 Reviews.io (96%) · **4.4/5** Trustpilot · **2,50,000+** certified

Enroll at gsdcouncil.org/certified-python-full-stack-developer

Why This Certification, Why Now

Python has become the backbone of modern web, data, and cloud applications — and full-stack developers who can ship end-to-end are among the most in-demand engineers in the market. This certification proves you can build the whole stack.



Full-stack skills are in high demand

Teams want engineers who can move fluidly between front-end, back-end, databases, and APIs — not just one layer.



Python powers modern back-ends

Django, Flask, and FastAPI drive everything from startups to enterprise platforms and AI-backed services.



APIs and cloud are the default

REST API design, authentication, ORMs, and cloud deployment are now baseline expectations for developers.



Employers want proof, not just resumes

A hands-on, project-based credential signals you can build secure, scalable applications on day one.

FROM THEORY TO PRACTICE

What You'll Be Able to Do



Demonstrate strong front-end and back-end development skills across the full Python stack



Build object-oriented Python applications with clean architecture and robust exception handling



Integrate relational databases with connector libraries and ORMs (SQLAlchemy, Django ORM)



Design and build REST APIs with Django, Flask, or FastAPI — including authentication and middleware



Develop modern front-ends with HTML, CSS, JavaScript, TypeScript, and a framework like React or Vue



Apply software-engineering best practices to ship secure, scalable, production-ready applications

Why GSDC

**4.4 / 5**

Trustpilot · Excellent

**4.8 / 5**

Reviews.io · 96% recommend

2,50,000+

professionals certified

500+

Fortune clients

190+

countries served

Since 2016

US · SG · Switzerland



Independent, vendor-neutral certification body established in 2016 — offices in the US, Singapore, and Switzerland.



Accredited by ABICB (Accreditation Board for International Certification Bodies) and a proud member of ANSI.



Alumni work at 500+ Fortune companies across 190+ countries; 100+ Authorized Training Partners worldwide.



Certification built and reviewed with practicing software engineers, full-stack developers, and technology leaders.

RECOMMENDED BY

Forbes · Indeed · TechTarget · CareerSidekick · LeanIX · People Managing People · Authentic



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Our Global Clients

Professionals across technology, cloud, finance, and software engineering hold GSDC certifications.

Oracle**Amazon****Microsoft****Cisco****Veritas****HP****Bank of America****Deloitte****Volkswagen**

IS THIS FOR YOU?

Who Is This Certification For?

- Python and Java developers
- Full-stack, front-end, and back-end developers
- Software engineers and application developers
- Web developers building modern applications
- Technical leads guiding development teams
- IT professionals moving into full-stack roles
- Anyone pursuing a Python full-stack certification to advance their career

PRE-REQUISITES

Prior experience in Python development and web technologies is recommended but not mandatory for this certification. The program builds from Python fundamentals up through databases, ORMs, backend frameworks, and modern front-end development — so motivated beginners can follow along while experienced developers deepen their full-stack expertise.

Learn from Experts

Learn from experienced practitioners and industry leaders who design, update, and teach the program — bringing real-world software engineering and full-stack development expertise to every module.



Maxim Salnikov

MICROSOFT

Digital and App Innovation Business Lead,
Western Europe



Trevor Wiseman

THE CIRCUIT

VP of Technology & AI Governance



Swathi Adimulam

ORACLE

OCI Cloud & AI Architect



Hayk Hakobyan

INSIGHTGENIE

Co-Founder



Baris Dirim

CULTUREASY

Human Systems Architect

What You'll Learn

40+ hours across the full Python stack, with hands-on labs in every module. Each module pairs expert-led videos and study material with practical, build-something exercises.

1

Introduction to Python Programming

Setup, venv, pip, syntax, operators, control flow, and first scripts

5

ORM with SQLAlchemy / Django ORM

Models, sessions, relationships, and migrations with Alembic

2

Object-Oriented Programming in Python

Classes, inheritance, encapsulation, polymorphism, and exceptions

6

Backend Frameworks: Django, Flask, FastAPI

REST API design, serialization, auth (JWT/session), and middleware

3

Python Data Structures & Collections

Lists, dicts, comprehensions, generators, and the collections module

7

Front-End Development

HTML, CSS, JavaScript, TypeScript, and React/Vue on the Python API

4

Database Connectivity with Python

sqlite3, psycopg2, MySQL connector, and SQLAlchemy Core queries

8

Capstone Project — Full Stack Application

Build an end-to-end app: Python REST API + database + modern front-end

Module-by-Module

Module 1 — Introduction to Python Programming

- Python installation, virtual environments (venv), and pip
- Running scripts via IDE (VS Code / PyCharm) and command line
- Python basics: syntax, variables, and data types
- Operators, control-flow statements, and loops
- Hands-on: install Python, set up a virtual environment, and run your first script from the command line

Module 2 — Object-Oriented Programming in Python

- Classes, objects, `self`, and constructors (`__init__`)
- Inheritance, method overriding, encapsulation, and polymorphism
- Exception handling: try/except with `IndexError`, `KeyError`, `ValueError`
- Nested classes; class vs. instance attributes
- Hands-on: build a class hierarchy demonstrating inheritance and exception handling

Module 3 — Python Data Structures & Collections

- Built-in types: list, tuple, set, and dict
- List / set / dict comprehensions
- collections module: deque, Counter, OrderedDict, defaultdict
- Iterators, generators, lambda expressions, and map/filter/functools
- Hands-on: replace ArrayList/HashMap-style tasks with comprehensions and generator expressions

Module 4 — Database Connectivity with Python

- sqlite3, psycopg2 (PostgreSQL), and mysql-connector-python
- Connection-pooling basics
- Introduction to SQLAlchemy Core for raw query building
- Hands-on: connect to a relational DB and run CRUD operations with a connector library

Module-by-Module

Module 5 — ORM with SQLAlchemy / Django ORM

- SQLAlchemy ORM: models, sessions, and relationships
- Database migrations with Alembic
- Django ORM basics for tracks leading into Django
- Hands-on: define models, set up relationships, and run migrations

Module 6 — Backend Frameworks: Django, Flask, FastAPI

- Django (batteries-included, ORM, admin panel, MVT)
- Flask (microframework) vs. FastAPI (async, type-hint driven, auto docs)
- REST API design, serialization (DRF or Pydantic)
- Authentication (JWT / session-based) and middleware
- Hands-on: build a REST API with FastAPI or Django REST Framework, including auth

Module 7 — Front-End Development

- HTML/CSS fundamentals and responsive design
- JavaScript: DOM manipulation, events, and fetch/AJAX
- TypeScript basics and benefits over plain JavaScript
- A modern front-end framework (React / Vue) consuming the Python backend API
- Hands-on: build a front-end that consumes the REST API from Module 6



Capstone Project · End-to-End Full Stack Application

— Build a complete application spanning a Python REST API (Django/Flask/FastAPI), a relational database with an ORM, and a modern React/Vue front-end — with authentication and clean architecture. Portfolio-ready and job-aligned.

Built to Get You Hired

Self-paced learning, hands-on labs, and career tooling — everything you need to prove full-stack skills and stand out in hiring.

- **Hands-on Capstone Projects**
Build real, portfolio-ready applications across the entire Python stack.
- **LinkedIn Enhancer & Resume Builder**
Polish your professional profile and resume to stand out to recruiters.
- **Generative AI Interview Practice**
Rehearse technical interviews on an AI-powered practice platform.
- **E-Learning Library & E-book Access**
Self-paced expert-led videos plus the GSDC Book of Knowledge study material.

ALL IN ONE ENROLLMENT

Everything Included

- **Expert-Led Videos**
40+ hours, self-paced
- **Hands-On Labs**
Practical exercise in every module
- **Career Tooling**
LinkedIn + resume builder + AI interview practice
- **Book of Knowledge**
GSDC study material & e-book
- **Capstone Project**
End-to-end full stack application
- **Job Support**
Career help + free GSDC membership

Exam & What to Expect

This is a certification, not a course. Study self-paced with the materials provided, then sit a proctored online exam. Lifetime access to materials, plus 2 practice exams.

IS THIS FOR YOU?

Who Is This Certification For?

YOUR ROLE	HOW CFSD HELPS YOU	CAREER OUTCOME
Python Developer	Extend back-end skills into full-stack with APIs, ORMs, and front-end.	→ Full Stack Python Developer
Front-End Developer	Add Python back-ends, REST APIs, and database integration.	→ Full Stack Engineer
Back-End Developer	Round out with modern front-end frameworks and API consumption.	→ Full Stack Engineer
Software Engineer	Prove end-to-end delivery across the entire Python stack.	→ Senior Full Stack Developer
Web Developer	Level up from sites to scalable, database-backed applications.	→ Application Developer
Technical Lead	Validate full-stack breadth to guide and review development teams.	→ Engineering Team Lead

Prior Python and web experience helps but isn't mandatory — built for developers at every level, from web developers to technical leads.



7-Day Money-Back Guarantee

Enroll with zero risk — full 100% refund within 7 days if you feel you haven't gained the skills you're looking for. Includes a complimentary exam retake and lifetime access to your materials.

 **Chat on WhatsApp**

 **Book a 10-min advisor call**

Choose Your Plan

Single Access

1

CERTIFICATION

- ✓ Self-paced expert-led videos
- ✓ GSDC Book of Knowledge (study material)
- ✓ Capstone Project + Job Support + membership
- ✓ Exam + 1 free retake & practice

Bundle Access

MOST POPULAR

3

CERTIFICATIONS

- ✓ Everything in Single, across 3 certifications
- ✓ GSDC Book of Knowledge for each
- ✓ Exam + 2 free retakes & practice
- ✓ Most-chosen by serious learners

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