



Full-Stack Development and AI

ZTH-COD-004 | Digital Makers | Specialisation | Coding

38 weeks

duration

500 hours

learning time

2 x 2h

live sessions per week

US\$500.00

fee per learner

Specialist school with a monthly applied project and a work placement through Zambesi Digital Works. Career targets: Full-stack developer, product engineer, freelance developer, technical founder.

Delivery

Needs an internet connection

Suitable for

Tertiary and university, Women and girls, Working professionals

What you will be able to do

- Complete a specialist school with an applied project every month and a final work placement through Zambesi Digital Works. Capstone and public portfolio required.

Syllabus

1. Foundation and tools (4 wks): Linux basics, Git, command line, web fundamentals -> Configured development environment
2. Front-end engineering (6 wks): HTML, CSS, JavaScript, a modern framework such as React, accessibility -> Responsive single-page app
3. Back-end engineering (8 wks): Server-side language (PHP, Node.js or Python), REST APIs, authentication -> Secure API with user accounts
4. Databases (4 wks): SQL design, MySQL or PostgreSQL, indexing, migrations -> Normalised schema for a real use case
5. DevOps and deployment (4 wks): Hosting (cPanel and VPS), CI basics, Docker introduction, monitoring -> Deployed live app with automated checks
6. AI integration (4 wks): API-based AI features, chatbots, retrieval basics, safety -> App with an AI feature
7. Capstone and placement (8 wks): Client brief, build, handover -> Production system and case study

Hands-on practical work

- Build and deploy a client system
- API and database projects
- AI feature integration

Resources and equipment

Laptops, Git hosting, cPanel or VPS account, test devices

Off-grid and solar option

Offline development; deploy when connected





Assessment

At least 60% overall, all core projects, approved capstone, public portfolio, satisfactory placement report.

Career direction

Full-stack developer, product engineer, freelance developer, technical founder

Software development is a major source of remote and local work

Next steps

Entry from EX1; TR3

Enrol

Skills first, certificate second: you finish with something you can do and a QR-verifiable certificate to prove it.

Enrol online at <https://zambesi.ac.zw/course.php?slug=full-stack-development-and-ai> or contact
info@zambesi.ac.zw / +263 7X XXX XXXX.

