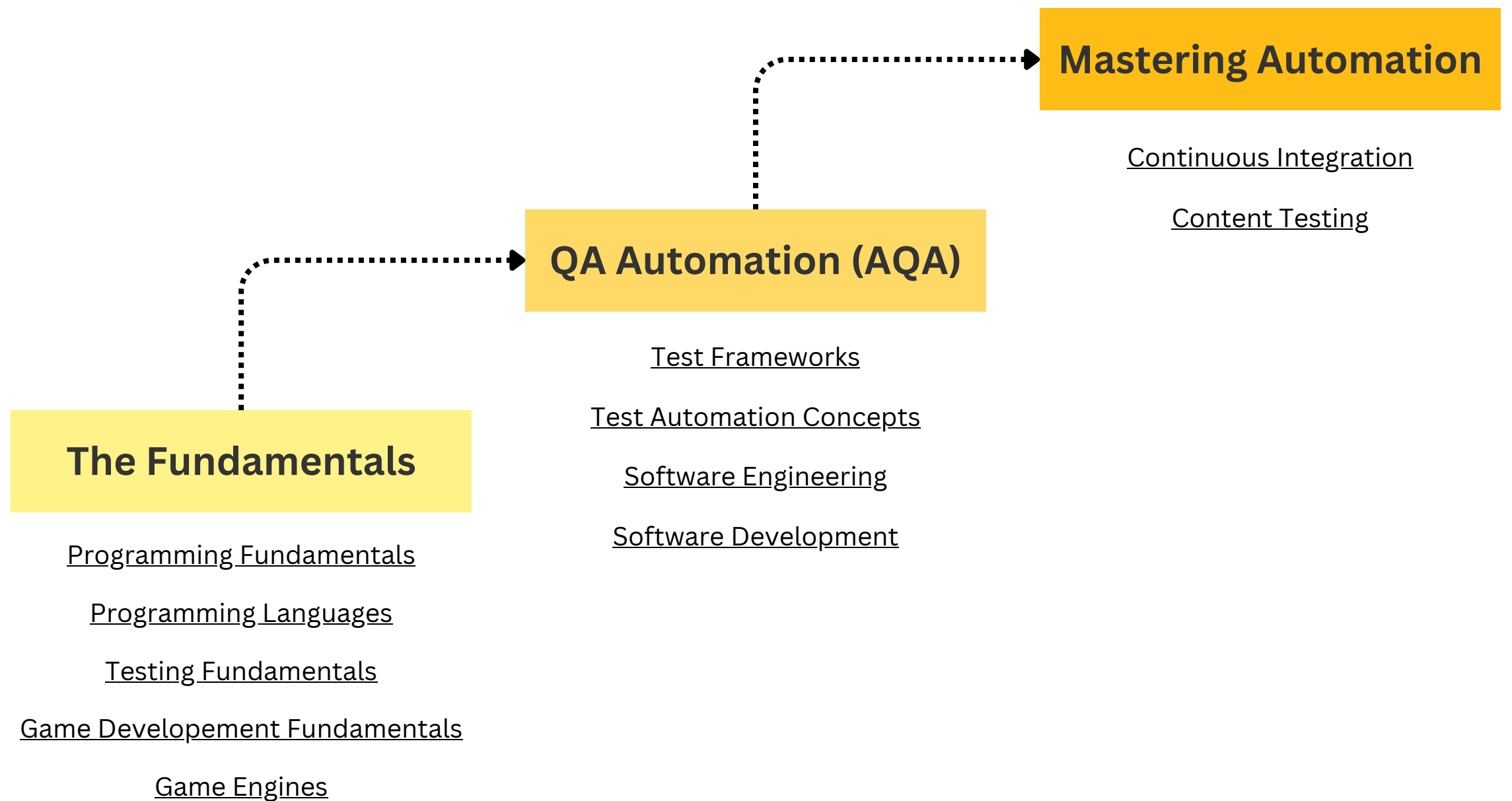


Roadmap to become QA Automation Engineer in games



Programming Fundamentals

- Object-Oriented Programming (OOP)
- Types:
 - Static typing
 - Dynamic typing
 - Type inference
- Compilation:
 - Linking
 - Compilation errors
 - Shared libraries
- Version Control System (Git, Perforce)



Programming Languages

- Python
- C# (Unity)
- C++ (Unreal)



Testing Fundamentals

- Testing approaches:
 - White-box testing
 - Black-box testing
 - Grey-box testing
- Types of automated tests:
 - Unit Tests
 - Integration tests
 - End-to-end tests
- Test planning
- Testing Strategy
- Reporting



Game Development Fundamentals

- Event loop
- Rendering pipeline
- Raycasting



Game Engines

- Unity
- Unreal
- Godot



Test Frameworks

- Unity Test Framework (Unity)
- AltTester (Unity, Unreal)
- Gauntlet (Unreal)
- GameDriver (Unity, Unreal, Godot)

Read my blog post comparing Unity test frameworks:
gameconductor.net/blog/a-comparison-of-unity-test-frameworks



Test Automation Concepts

- Assertions
- Screen Objects (Page Object Model)
- Input Simulation
- UI Readiness



Software Engineering

- Asynchronous programming
- Design patterns
- Timeouts
- Error reporting
- Logging



Software Development

- Software development life cycle (SDLC)
- Code reviews
- Software documentation
- Bug reporting



Continuous Integration

- Command line
- Test results processing
- Parallel runs
- Notifications (e-mails, slack)



Content Testing

- Content recording
- Localization testing
- Branching narrative





Made with ❤️ by [Romain Gauthier](#)

Read my blog on test automation for
video games on gameconductor.net