



Università
di Catania



Laboratorio di Ingegneria dei Sistemi Distribuiti

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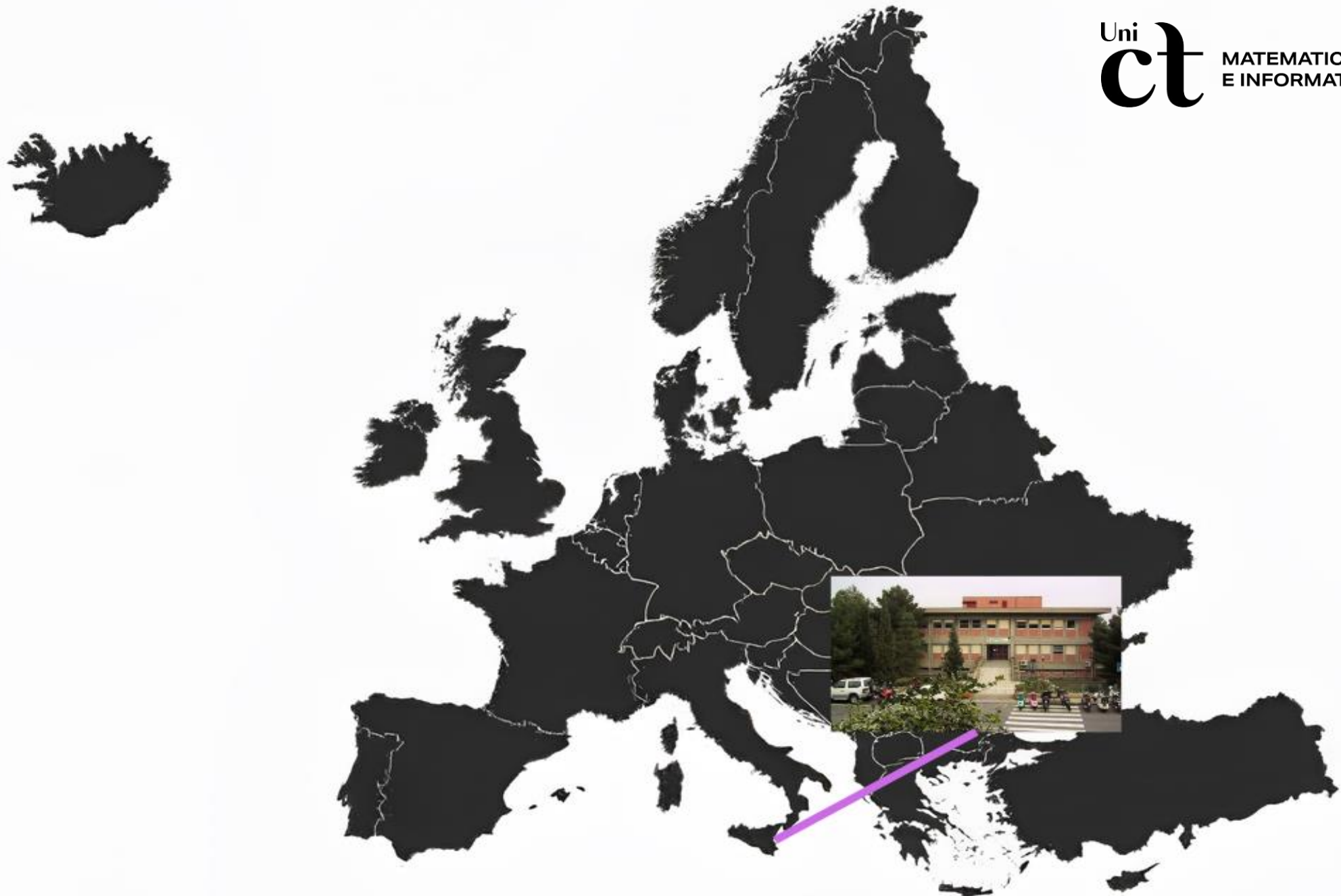
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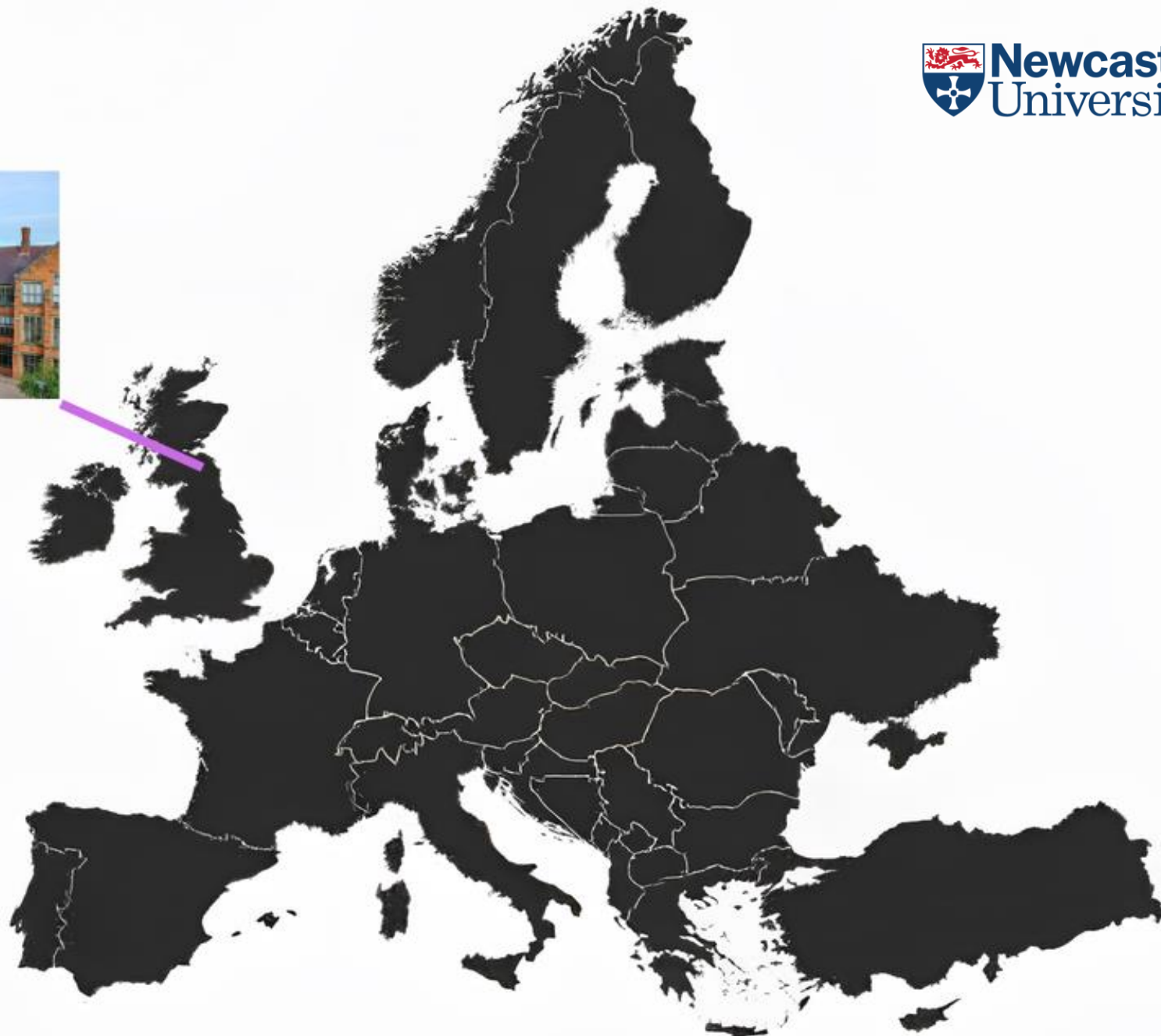
A.A. 2024/2025

Who am I?

- **Post-Doc Researcher** presso il dipartimento di Matematica e Informatica, Università di Catania
- **Docente** Ingegneria dei Sistemi Distribuiti Laboratorio -DMI, Unict
- **Docente** Informatica per le discipline umanistiche - DISUM, Unict









UNIVERSITY OF
THESSALY



Attività di Ricerca



AI for Software Engineering

Code Refactoring

Software Testing

Source Code Quality

Mining Software Repositories

Parallel Computing

Distributed Systems

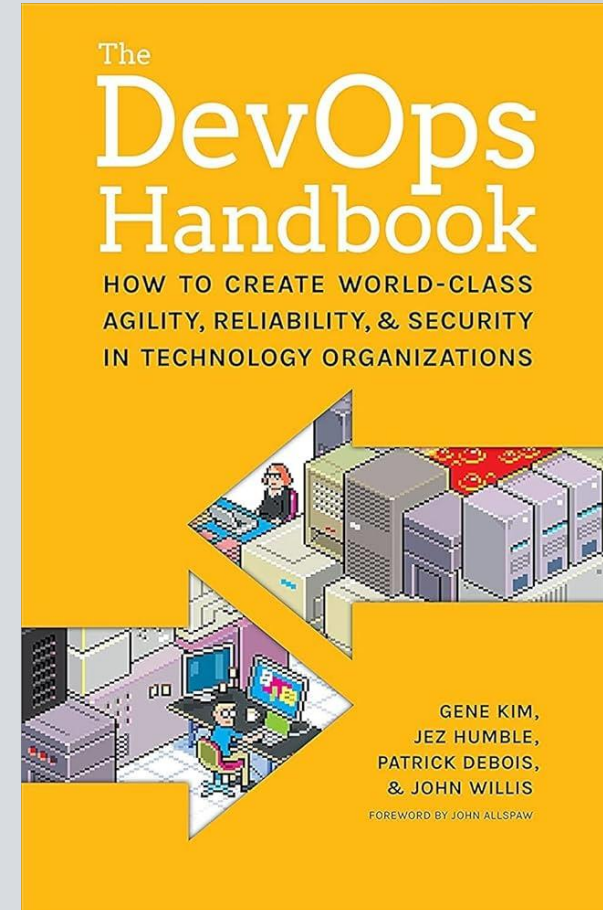
Contenuti del Corso

- Introduzione a DevOps
- Git workflow e Maven con integrazione CI/CD
- Introduzione ai Microservizi
- Microservizi con Spring Boot e Python
- Design Pattern per i Microservizi
 - Database per service and SAGA
 - Event sourcing
 - API Gateway
 - Service registry and Health Check API
- Distributed tracing
- Unit Testing e Mockito
- Mutation e Regression Testing



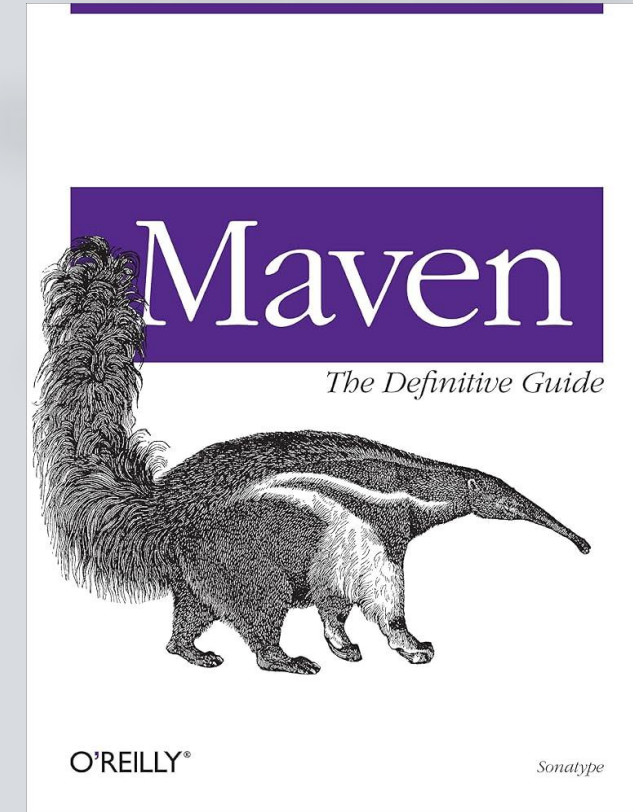
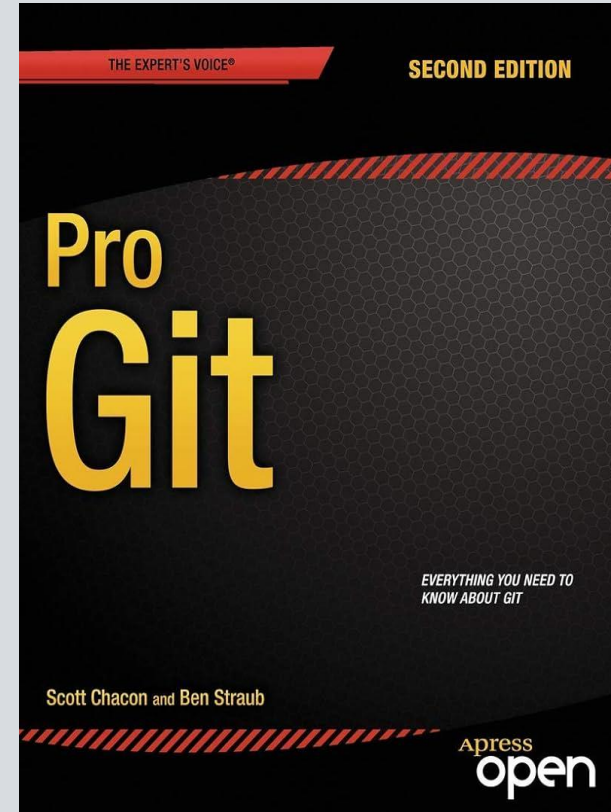
Introduzione a DevOps

- La cultura DevOps
- Concetti chiave
- Pratiche e Tool
 - SCM & Pipelines
 - Continuous Integration
 - Continuous Delivery
 - Microservices
 - Infrastructure Automation



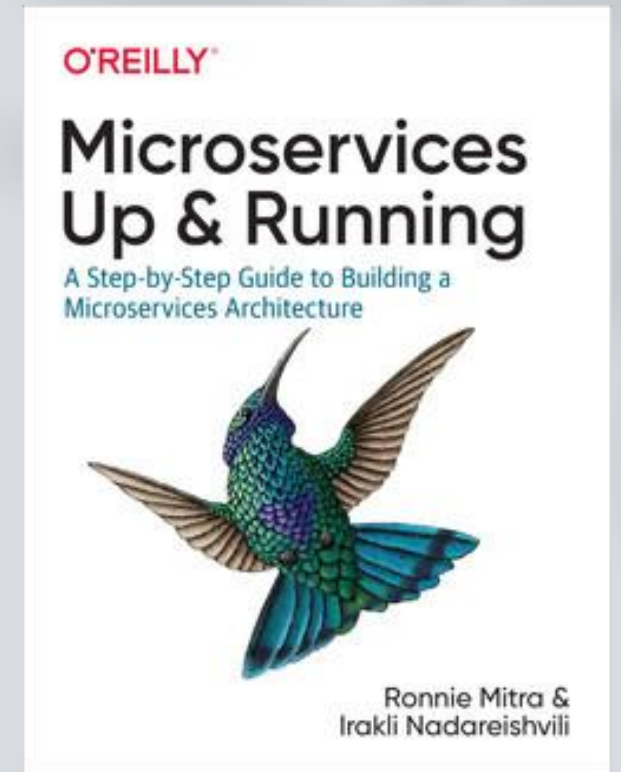
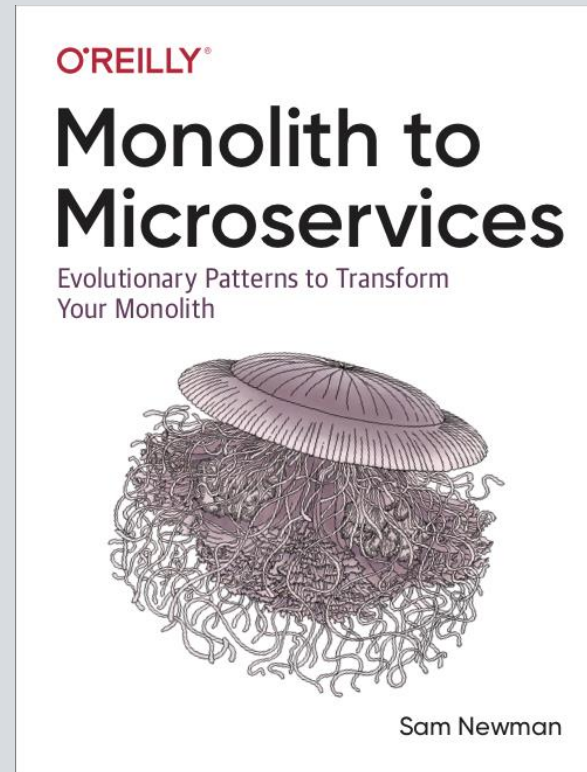
Git Workflow e Maven

- Comandi Git
- Git Workflow
- Concetti avanzati su Git
- Maven
 - Gestione Dipendenze
 - Compilazione e testing
 - Reportistica
 - Integrazione con Sistemi CI/CD



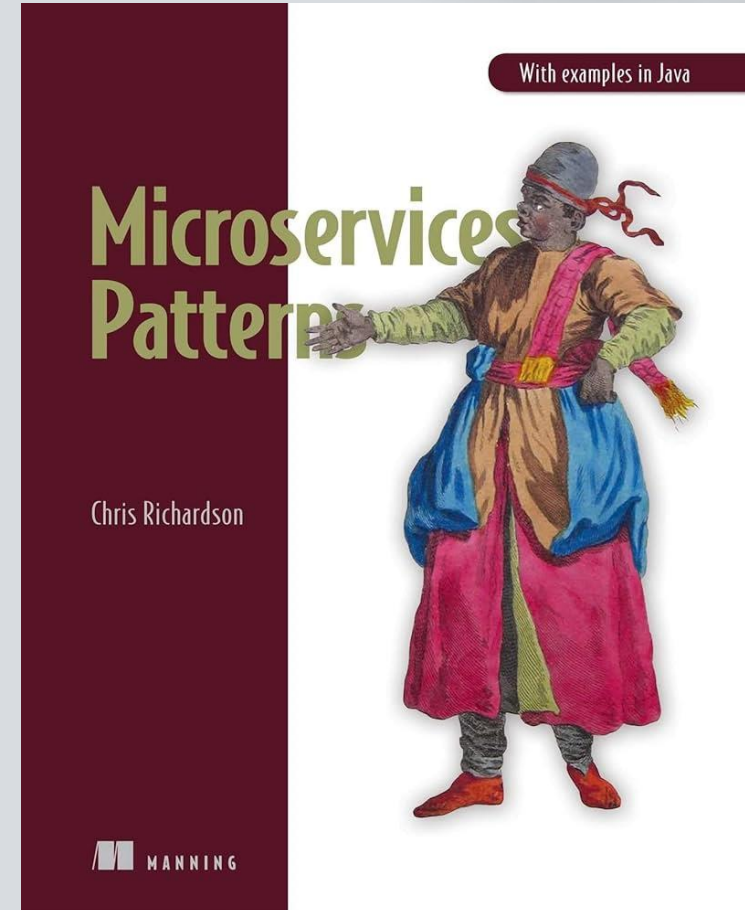
Microservizi

- Microservices
 - Vantaggi Svantaggi
 - Refactoring a Microservizi
 - Implementazione con Spring Boot
 - Implementazione in Python



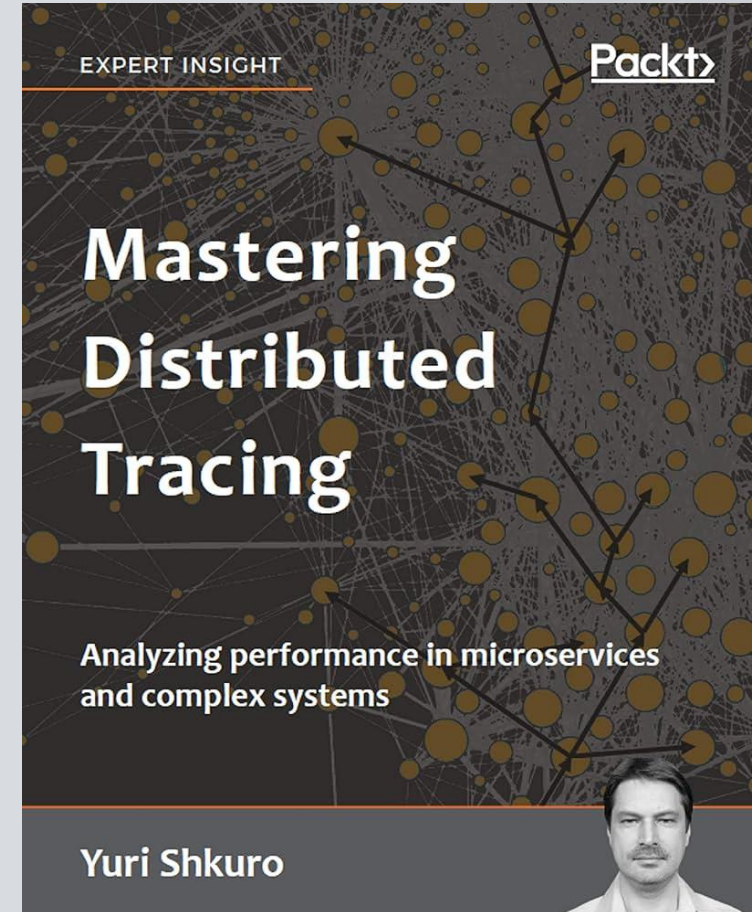
Design Pattern per i Microservizi

- Database per service and SAGA
- Event sourcing
- API Gateway
- Service Registry and Health Check API



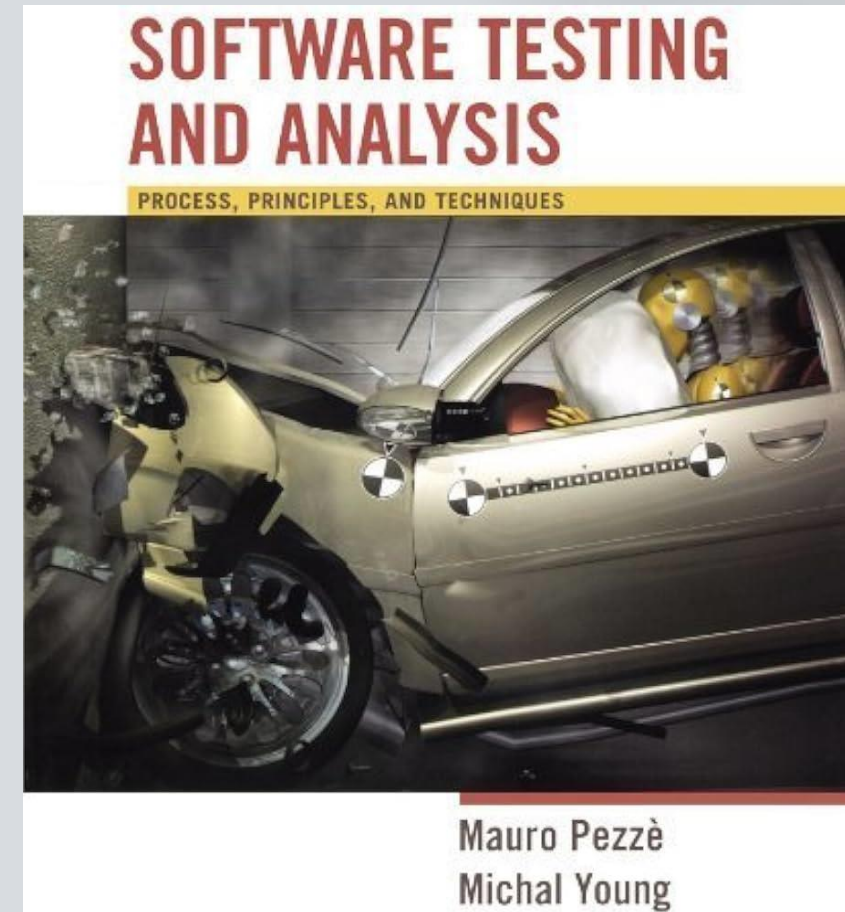
Distributed Tracing

- Tracing in applicazioni a microservizi
- Open Tracing
- Strumenti per i microservizi e i sistemi distribuiti



Software Testing

- Unit Testing
 - Test Suite & Scaffolding
 - Junit
 - Mockito
 - JaCoCo
- Mutation Testing
- Regression Testing
- Generazione Automatica di Test



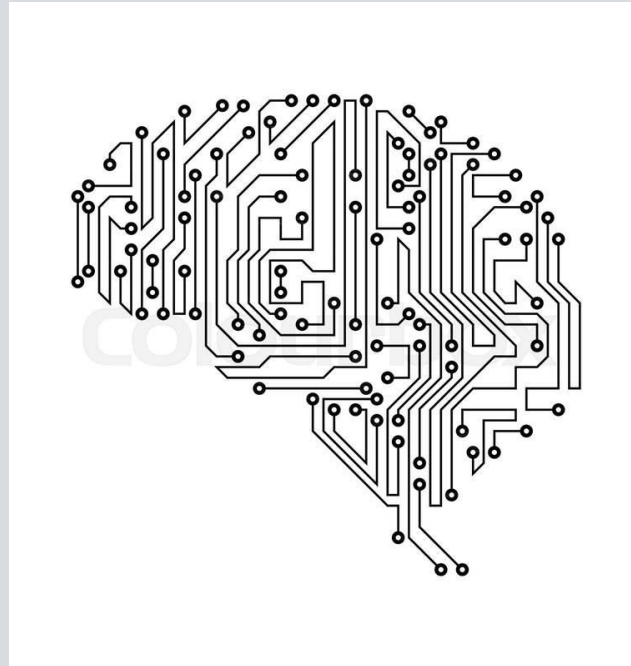
What do you need?



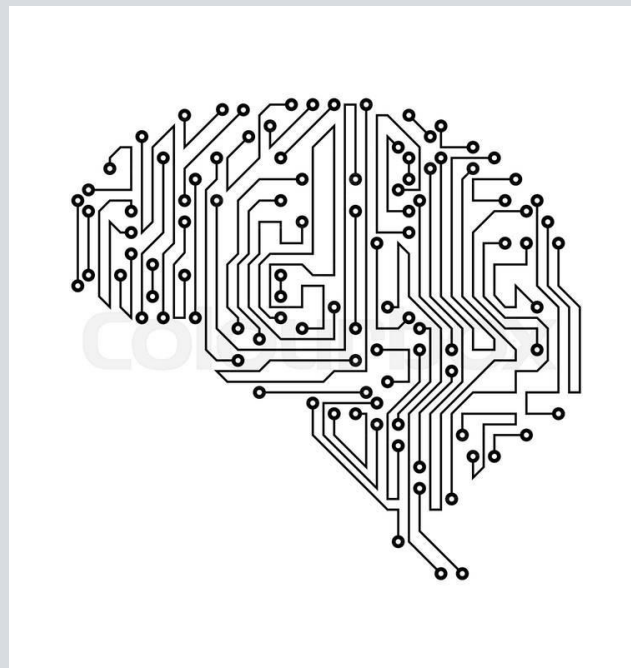
What do you need?



What do you need?



What do you need?



Contatti

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fronte lo studio Prof. Tramontana)

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