

# IT engineering map

## 1. Infrastructure & Operations:

- **Infrastructure:**
  - ♦ Manage physical and virtualized hardware resources.
  - ♦ Oversee capacity planning and resource optimization.
- **Operating Systems:**
  - ♦ Manage and maintain diverse OS platforms.
  - ♦ Ensure OS security, stability, and performance.
- **Network:**
  - ♦ Design and implement secure and scalable network infrastructures.
  - ♦ Monitor and ensure network availability and performance.
- **Cloud:**
  - ♦ Manage and integrate various cloud solutions, from public to hybrid models.
  - ♦ Strategize and implement cloud migrations.
- **Automation & Deployment:**
  - ♦ Implement containerization for application isolation and portability.
  - ♦ Orchestrate containers for scalable application deployment.
  - ♦ Automate infrastructure tasks and streamline software deployment processes.
- **Security:**
  - ♦ Implement cybersecurity measures and proactive threat detection.
  - ♦ Ensure adherence to industry and regulatory standards.

## 2. Software Engineering:

- **Design:**
  - ♦ Architect scalable and resilient software solutions.
  - ♦ Design intuitive user interfaces and experiences.
- **Development:**
  - ♦ Write, optimize, and review application code.
  - ♦ Collaborate on code versions and changes.
- **Testing:**
  - ♦ Conduct various levels of software testing to ensure quality.
  - ♦ Validate software functionality and performance.
- **Deployment:**
  - ♦ Implement continuous integration and continuous deployment processes.
  - ♦ Monitor and manage applications in various environments.
- **Maintenance:**
  - ♦ Ensure software longevity through updates, patches, and documentation.

### 3. Data, AI, and Analytics:

- **Data Engineering:**
  - Manage the lifecycle of data, from collection to storage.
  - Transform and integrate diverse data sources for analysis.
- **Data Analysis & Modeling:**
  - Extract insights from data through statistical methods.
  - Model data patterns and predict future trends.
- **AI Engineering:**
  - Develop and integrate intelligent algorithms.
  - Ensure ethical use and transparency in AI applications.
- **Business & Product Analysis:**
  - Drive decisions using data-driven insights.
  - Analyze product metrics and user behaviors.