Occupation-Specific Information - Blockchain Engineer

https://www.onetonline.org/link/summary/15-1299.07

Job-Description

Maintain and support distributed and decentralized blockchain-based networks or block-chain applications such as cryptocurrency exchange, payment processing, document sharing, and digital voting. Design and deploy secure block-chain design patterns and solutions over geographically distributed networks using advanced technologies. May assist with infrastructure setup and testing for application transparency and security.

Tasks

- Assess blockchain threats, such as untested code and unprotected keys.
- Automate the deployment of software updates over geographically distributed network nodes.
- Design and deploy blockchain design patterns to make transactions secure, transparent, and immutable.
- Design and develop blockchain technologies for industries such as finance and music.
- Design and implement dashboard and data visualizations to meet customer reporting needs.
- Design and implement data repositories to integrate data.
- Design and verify cryptographic protocols to protect private information.
- Determine specifications for, or implement, logging.
- Develop a maintainable code base using object-oriented design principles, practices, or patterns.
- Discuss and plan systems with solution architects, system engineers, or cybersecurity experts to meet customer requirements.
- Discuss data needs with engineers, product managers, or data scientists to identify blockchain requirements.
- Evaluate blockchain processes or risks based on security assessments or control matrix reviews.

- Evaluate new blockchain technologies and vendor products.
- Implement catastrophic failure handlers to identify security breaches and prevent serious damage.
- Run infrastructure tests to examine the behavior of large peer-to-peer networks.
- Test the security and performance of blockchain infrastructures.
- Update client and server applications responsible for integration and business logic.

Detailed Work Activities

- Design integrated computer systems.
- Discuss design or technical features of products or services with technical personnel.
- Implement security measures for computer or information systems.
- Test computer system operations to ensure proper functioning.
- Write computer programming code.
- Analyze security of systems, network, or data.
- Create databases to store electronic data.
- Design software applications.
- Develop computer or information security policies or procedures.
- Develop procedures for data management.
- Evaluate new technologies or methods.
- Evaluate utility of software or hardware technologies.
- Install computer software.
- Maintain computer equipment or software.