

CAREER PROFILE:

CRYPTOGRAPHER/ CRYPTANALYST AKA ENCRYPTION EXPERT



DEGREE REQUIRED?

Yes

Master's Degree

Focusing on Mathematics or
Computer Science is Encouraged

MEDIAN SALARY

+\$100,000

JOB GROWTH

21%

SOFT SKILLS

Intelligent, Analytical & Creative

Capable of Tackling
Complex Mathematical Problems

Trustworthiness

COMMON JOB DUTIES

- ▶ Protect important information from interception, copying, modification and/or deletion
- ▶ Evaluate, analyze and target weaknesses in cryptographic security systems and algorithms
- ▶ Design robust security systems to prevent vulnerabilities
- ▶ Develop statistical and mathematical models to analyze data and solve security problems
- ▶ Test computational models for reliability and accuracy
- ▶ Investigate, research and test new cryptology theories and applications
- ▶ Probe for weaknesses in communication lines (e.g. wireless network, secure telephone, cellphones, email, etc.)
- ▶ Ensure message transmission data (e.g. wireless network, secure telephone, cellphones, email, etc.) are not illegally accessed or altered in transit
- ▶ Decode cryptic messages and coding systems for military, political and/or law enforcement agencies

