JOB 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

for more info
The National Integrated Cyber Education Research Center (NICERC) offers grant-funded cyber curricula, professional development, and career resources. Our goal is to empower educators and grow the cyber workforce of tomorrow.