Cryptographer

**Job Description:** Help keep data safe by writing ciphers, algorithms, and other security protocols to encrypt the information.

**What does a Cryptographer do?**

* Use mathematics develop new methods for encrypting data
* Work on finding techniques to solve ciphers
* Create reports based on data you have
* Test existing models for reliability or accuracy
* Apply mathematical theories when solving problems
* Look for new relationships between existing mathematical principles
* Help companies protect records, like personal health information or bank records, using encryption
* Check for weaknesses in security systems and algorithms
* Work on a team to encrypt and decrypt data
* Provide detailed explanations of your processes to colleagues
* Talk with clients about concepts

**Your Interests:**

* Do you like problem solving and puzzles?
* Are you good at math?
* Can you clearly communicate your ideas to others?

**Outlook: Bright**

Average Salary - $53.30 hourly, $110,860 annual

Projected Job Openings – 15,000 over the next 10 years.

**Education/Program of Study:**

* Most positions require a graduate degree such as a master’s or Ph.D.
  + Possible degree paths are computer science, computer engineering, cybersecurity, mathematics, and other related fields