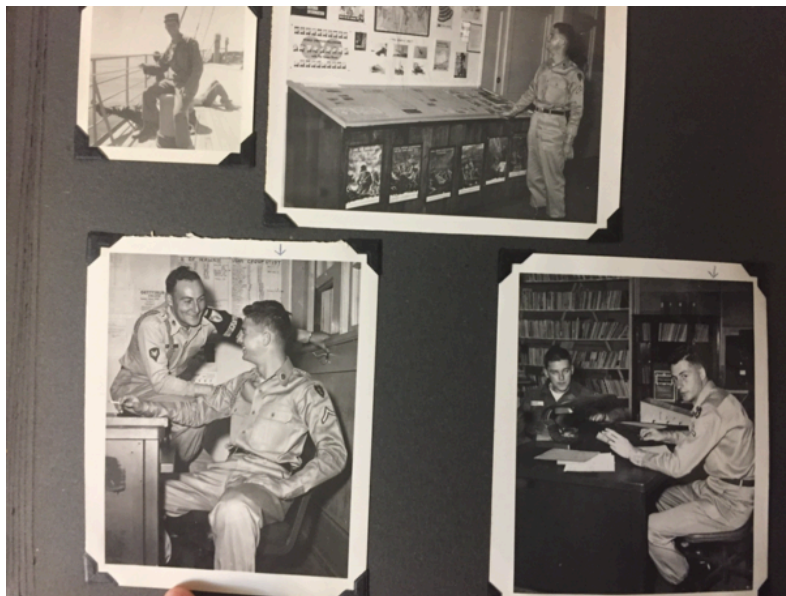


Roman Nicolai
September 9, 2019
ICS 222

Essay I Abstract : Cryptography

I wish to do further research in the area of cryptography. Cryptography is highly interesting to me; I wish to learn more about its history and applications. My fascination with this area of mathematics and computer science actually stems from my grandfather. My grandfather was drafted into the American army in his early 20s. Back then, when initiated into the military, apparently new recruits would go through some sort of intelligence/aptitude test. This test was to see what position new soldiers were best suited for. It turns out that it was deemed that my grandfather was best suited to be a cryptographer. As a cryptographer in the army, my grandfather was responsible for deciphering enemy messages as well as designing messages for his own side of the war. He worked with electronics and computer equipment. He also eventually evolved into a teaching position in the military. I guess you could say he was a computer scientist all those years ago, before modern systems and the Internet.

So now I want to learn more about cryptography in the modern era. What is its role in our society today? Encryption must surely be a part of our daily lives. What is the mathematics behind this? What interesting things can we do with this? I wish to study the subject more in-depth.



Grandfather in army