

Thomas Hanna

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Farmingdale, NJ
March 15, 1996
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Education

Rutgers University

Bachelor of Science, Computer Science

Brookdale Community College

Associate of Science, Computer Science

New Brunswick, NJ

Spring 2020

Lincroft, NJ

Fall 2017

Projects

Crypto-Chat

- This Android application is designed to be a discreet messaging service that makes use of different object-oriented design and asymmetric cryptography to encrypt text messages.
- The app is written in Java on Android Studio and uses the java. Security library for key generation and message encryption/decryption. User account information and keys are both converted into JSON objects and stored on a Google Firebase NoSQL database. The layout for the application was designed with XML.

Chess

- Basic chess game with a full ruleset including castling and enpassant with the option to play with a friend.
- Using many object-oriented techniques, the application was written in Java on the IntelliJ IDE and the GUI was made using JavaFX and XML.

Pseudo-Airline Reservation System

- With a four-person group I designed and implemented a relational database system to support the operations of an online flight reservation system. Includes functionality for customers, admins, and customer representatives.
- We used HTML for the user interface, MySQL for the database server, and Java, JDBC for the connectivity between the UI and database server. The MySQL server and web server were both hosted using AWS and Apache Tomcat.

Cryptography Algorithms

- Multiple programs designed to help decrypt/encrypt plaintext. Each program has its own use from encrypting/decrypting strings to factoring integers. I wrote these functions and programs to practice learning cryptography and Python.

Related Skills

Programming Languages: Python, Java, C, SQL, JavaScript, XML.

Software Tools: BASH, Eclipse, Android Studio, PHP Storm, IntelliJ, Git, MySQL Workbench, Visual Studio, SSH, GDB, Github, Bitbucket, Jupyter Notebook, Anaconda, PyCharm.

Other: Android, React JS, Bootstrap, Laravel, Vue, Node.js, PDFMake, D3, Electron, Firebase, Numpy, JavaFX, JSON.

Relevant Courses: Data Structures, Algorithm Analysis, Cryptography, Computer Security, Database Design, Systems Programming, Discrete Mathematics, Software Methodology, Formal Languages & Automata.

Work experience

Software Developer Apprenticeship

Vorsi Software

Hudson Valley, NY

May 2019 – September 2019

- Vorsi is an enterprise resource planning software for businesses that has many services which help businesses run easier and more efficiently. Some functions for clients are the ability to keep track of orders, invoices, and payments, do product management, implement an online ordering system, and keep track of analytics.
- Using JavaScript and the D3 library I implemented graph for clients to keep track of analytics about their past orders which were stored in an SQL database.
- Added functionality for clients to generate PDFs for opening balance statements, aging reports, and invoices using information stored in the DB.
- I also assisted my mentor in obtaining his first client, a bread distributor with over 800 clients, by creating a PowerPoint presentation that included statistics on how much money and time would be saved by using the Vorsi software.

Computer Science Tutor

Brookdale

Lincroft, NJ

January 2017–December 2017

- Assisted students in acquiring better understanding of Java programming, data structures and SQL. Demonstrated ability to assist students in achieving higher grades on computer science related courses.