**Maeda Hanafi**

**New Haven, CT, USA**

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**Education:**

**PhD in Computer Science.** New York University (NYU). Fall 2015 – Present.

**Bachelor’s of Computer Science.** Southern Connecticut State University (SCSU). Sept. 2009– Fall 2012

* GPA 3.62/4.0
* Honors Convocation, Cum Laude Award, Spring 2013
* National Society of Leadership and Success, Presidential Award, Spring 2013
* Honors Convocation, Academic Excellency Award in Computer Science, Spring 2012
* Dean's List, College of Arts and Sciences, Spring 2010, Fall 2011, Spring 2012, Fall 2012
* Earned college credits while in high school from Gateway Community College (Sept. 2008 - May 2009) with a of GPA 3.73/4.0 (Dean's List Fall 2008 and Spring 2009)

**Hanafi Homeschool,** Highschool, West Haven, CT, Graduated 2009

**Research Experience:**

**Research Assistant**, Design Technology Lab, New York University Abu Dhabi (NYUAD). Summer 2014 – Present.

* + Advisor: Azza Abouzied
  + Implemented program synthesizer for learning and structuring unstructured datasets

**Research Assistant,** Computer Science Dept., SCSU. Fall 2013 - Spring 2014

* + Advisor: Amal Abdel-Raouf
  + Co-authored and published paper on software maintenance from perspective of change theory

**Teaching Experience:**

**Teaching Assistant**, CSC321 Algorithm Design and Analysis, CSC152 Computer Programming I, CSC310 Multimedia Systems. Computer Science Dept., SCSU, Spring 2013

* Instructor: Prof. Amal Abdel-Raouf
* Graded and corrected homeworks and Java programming projects, and assisted students with homework assignments.

**Teaching Assistant,** CSC310 Multimedia Systems, CSC152 Computer Programming I, CSC200 Information Management and Productivity Software. Computer Science Dept., SCSU, Fall 2013

* Instructors: Prof. Amal Abdel-Raouf, Prof. Taraneh Seyed
* Conducted tutor sessions for Java programming

**Working Experience:**

**Voluntary Web Developer Internship,** Algosmith Computing, West Haven, CT. Summer 2010.

* Assisted in build an ecommerce project using asp.net
* Built a database (MS SQL server 2008)

**Voluntary Database Internship,** Masjid Al Islam Organization, New Haven, CT. Summer 2009.

* Managed and updated the website (http://www.masjidalislam.net/) (PHP and Joomla)
* Gathered the data to put into the database (MySQL)

**Research Publications:**

* Hanafi M, and Abdel-Raouf A. ***Software Maintenance from the Change Theory Perspective*.** Proceedings of the 2014 International Conference on Circuits, Systems, Signal Processing, Communications and Computers (CSSCC '14), Venice, Italy. 2014 Mar.
* Hanafi M, and Abdel-Raouf A. ***Change Theory: Towards a Better Understanding of Software Maintenance***. WSEAS Transactions on Computers, Volume 13, 2014: 421-9. 2014

**Graduate Courses**

* Web Programming ('13), Advanced Database System ('13), Computer Networks ('13), Computer Graphics ('13), Multithreaded Distributed Programming ('13), Advanced Software Engineering ('13)

**Undergraduate Courses**

* Data Mining ('12), CS Project Seminar ('12), AI ('12), Algorithms ('11), Software Design and Development ('11), E-Commerce ('11), Computer Organization ('10), Database ('10), OS ('10), Data Structures ('10), Networks ('10)

**Languages**

* Java, JavaScript/Node.js, SQL, PHP, Ruby on Rails, CSS, XML, Android Java, C++/C

**Extra-Curricular and School Programming and Research:**

**Heroku Webapp and Cloud Services Integration,** Fall 2013 and Spring 2014

* Integrated PostGresSQL database with Heroku platform using node.js for RSS feed reader
* Incorporated game development concepts in JS and HTML5 for a Multiplayer Shapes Game
* Developed Web app on AWS and deployed to Heroku

**Pacman Animation with OpenGL C++,** Animation Project, Fall 2013

* Implementation of transformations on matrices
* Programmed with OpenGL and C++ for controlling timers and OpenGL primitives, surfaces, and lighting for animation
* Implemented anti-aliasing algorithm

**Database Locking Management Research Paper,** CSC535 Advanced Database Systems, SCSU, Spring 2013.

* Analyzed architecture of locking management and schedulers
* Scrutinize locking management in Oracle

**Gymnastics Data-Gathering Android Application,** Group project using Azure SQL database and Android, CSC530 Advanced Software Engineering, SCSU, Fall 2013.

* Set up SQL database on Azure platform
* Developed Android application that connects and queries Azure database using Windows Azure Mobile services

**Android Application development**, Educational andGame Development for Android in Java, Spring 2012 to Summer 2013.

* Published children’s Arabic Alphabet app, Connected Arabic Words, for Android in Google Play
* Developed and published Medieval Dodgeball and Ghost Busters to Google Play
* Integrated TapForTap, an advertising SDK, into apps
* Used AndEngine, an open source OpenGL 2D game engine

**Artificial Intelligence,** Handwritten Recognition using Neural Networks in Java, CSC 481 Artificial Intelligence and CSC400 Computer Science Seminar, Fall 2011.

* Designed neural network for handwritten recognition capability
* Programmed Java GUI that allows user to draw a letter and train a neural network to recognize that letter.
* Implemented Back-propagation algorithm to train the neural network

**Alumni Website,** Group project using PHP, WAMP, and mySQL, CSC330 Software Engineering, SCSU, Spring 2011.

* Developed using SCRUM development process
* Wrote the security module

**Individual Weblog Analysis Research,** MS Access database, CSC335 Database Management System Design, SCSU, Fall 2010.

* + Collected weblog information into the database using MS Access.
  + Analyzed the weblog to predict the customer behavior

**Pac-Man Game,** Java Applet version of Pac-Man game, Summer 2010

* Designed multi-threaded game loop, including sound and animation
* Dealt with Java 2D API and GUI
* Used A\* Path Algorithm for game intelligence

**Robotics Programming,** LEGO Robot Mindstorms NXT Programming, University of New Haven, Summer 2009.

* GUI programming with NXT-G to the NXT Intelligent Brick Piece
* Programmed robot with NXC (Not eXactly C) language