Tahmid Khan

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Education

University of California San Diego

B.S Computer Science

Minor in Mathematics

Major GPA: 3.83

September 2015 – Present

Est. Graduation April 2019

Coursework

Algorithms

Theory of Computation

C and Java Programming

Programming Languages

Discrete Mathematics

Software Tools and Techniques

Data Structures and Object-Oriented Programming

Computer Organization and System Programs

Math for Algorithms and System Analysis

Digital Components and Design

Advanced Data Structures

Software Engineering and Design Patterns

Artificial Intelligence and Machine Learning

Computer Architecture and Processor Design

Full Stack Development and UI Testing

Links

Personal | https://tahmidk.github.io

GitHub | https://github.com/tahmidk

LinkedIn | www.linkedin.com/in/tahmidhkhan

Skills

Programming:	HTML, CSS, JS, Python, Java, C, C#, C++, ARM Assembly, OCaml, Prolog, Verilog HDL, R Statistics, SQL
Software:	GitHub, Android Studio, R Studio, Unity Game Engine, 3DS Max, Quartus Prime, ModelSim Altera, ZenHub, Firebase, Junit, Google Play Services, Expresso
Personal:	Teamwork, Communication, Public speaking, Leadership, Adaptability, Quick learner, Conflict resolution, Time management, Critical thinking, Analytical, Meticulous

Projects

EnDMe Microprocessor Design

2018 – Present | University of California San Diego

- In a team of two, designed from scratch a full custom instruction set architecture and single cycle modular CPU design datapath and control optimized for encrypting and decrypting short messages using the MIPS architecture for reference.
- Designed using system verilog for synthesis and model sim for testing.

Android Music App – Flashback Music

2018 | University of California San Diego

- Developed an android app that can be configured to play select nostalgic music chosen by the user at given locations. If a user plays a certain song at a given location, time and day, if the user returns to that location in the future, the music player will more likely play that song. App implemented with the Android Studio IDE.
- Development team of 6 employing Agile development cycle principles to thoroughly plan, implement, and deliver the app. Gained working experience of full-stack organized app development, ZenHub and application of various software design patterns as well as experience with JUnit and Expresso for code and UI testing.

Unity Game Project – Modern Chess

2017 – Present | University of California San Diego

- Designing a fully function 3D Unity game using the Unity editor. Game is a chess game with items obstacles, terrestrial mechanics, and custom chess board designs/terrains. Programmed object oriented and well-encapsulated scripts and game logic in C#. Worked with 3DSMax for basic game object designs.

Modular Mini-CPU FPGA Design

Summer 2017 | University of California San Diego

- Designed a digital circuit, datapath, and control unit for the mini-CPU and programmed circuit into an FPGA using the Verilog HDL in the Intel Quartus Prime IDE.
- CPU takes an instruction at each clock cycle and parses the data before completing the indicated operation with two operand registers and writing the appropriate output to an output register.

Android Emoji Keyboard

2016 – 17 | University of California Los Angeles

- Programmed android keyboard with a button to insert emojis based on facial expression using Microsoft's cognitive recognition API in a team of 4. Team divided work by pair; my subteam was mainly responsible for front-end development and implementation of a keyboard button to trigger Microsoft cognitive recognition function.
- Gained collaborative source control experience using GitHub.

Java Game – Ultimate Tic-Tac-Toe

2015 – 16 | University of California San Diego

- Programmed a multiplayer game complete with a menu, graphics and animations based on the JavaFX library and demonstrated project at a project fair. Applied object oriented principles to design game loop and used appropriate data structures to represent game elements.