

Kevin Tran

B.S. Computer Science
Stony Brook University | GPA: 3.7 | Class of 2019 (Spring)

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EXPERIENCE

Stony Brook University — *Teaching Assistant for Computer Science I*
Aug 2016 - Dec 2016

- Hosted lab and study sessions.
- Assisted students in the understanding of course material.
- Assisted the professor in setting up and proctoring exams.

Starbucks, Manhattan, NY — *Barista*
June 2016 - Aug 2016

- Provided customer service, took orders, and operated cash registers and credit card machines.
- Learned the recipes and techniques for creating all beverages served.

Brooklyn Public Library, Brooklyn, NY — *Technology Assistant*
Aug 2012 - June 2013

- Hosted computer workshops on programs such as Microsoft Excel and Microsoft PowerPoint for patrons.
- Assisted patrons in using library technologies such as the public computers, printers, and online resources.

TECHNICAL EXPERIENCE

- **Languages:** Java, MIPS, Standard ML, LaTeX, R, C
- **Skills:** Git, IntelliJ IDEA, SML of New Jersey, TexMaker, MakerBot MakerWare, Cura, Arduino

RELATED COURSES

- Procedural & Object-Oriented Programming
- Data Structures & Algorithms
- Logical & Mathematical Foundations of Computer Science
- Development of Practical & Systematic Programming Concepts
- Assembly Language & Concepts of Computer Organization & Architecture
- Finite Mathematical Structures
- Survey of Probability & Statistics

PROJECTS

BuzzWord (Dec 2016) — *A word-based game where players are given a network of connected letters, and they aim to identify as many words as possible within a limited amount of time. Written in Java.*

- Words loaded from text files are stored using Hash maps for efficient access in-game.
- Profiles, consisting of a username, a password, and game progress, can be created, edited and saved. Profile data are saved into, and loaded from a single JSON file using the Jackson library.
- Profile passwords are encrypted using the java security framework before being stored to make them not human-readable. Passwords are decrypted using the same framework when users are signing in.

Hangman (Oct 2016) — *The classic Hangman game in all its fashion. Written in Java.*

- Game progress can be saved to, and loaded from a JSON file using the Jackson library. Location of where to save and/or load JSON progress files is user-determined using a FileChooser object.
- The Hangman figure is represented by an array of invisible Shape objects. As the player guesses incorrect letters, each successive Shape is set visible.
- Application properties are stored and loaded from an XML file to allow for easy language extensions and to separate code from content.

Zork (Apr 2016) — *A text-based, story game, allowing the player to choose his fate through multiple scenarios. Written in Java.*

- The application first requests the player to load a predefined game file, represented by a formatted text file. Once loaded, the game can then be played or edited. Once edited, the change is reflected in the text file.
- The various storylines in a game are stored into a tree data structure, with each event being its own tree node.
- To store a game into a tree, story events, represented by tree nodes, are recursively added onto the tree. Their correct positions are determined by a sequence of numbers, with each story event having a unique sequence.

Intersection Simulator (Mar 2016) — *Simulation of a road intersection including the random generation of vehicles within lanes and the dispersion of traffic using a signal light. Written in Java.*

- Variables such as the number of roads, the vehicle influx rate, simulation time, and the green light duration for each road can be defined by the user, allowing for more accurate modeling of the traffic of varying roads.
- Each of three lanes on a road is modeled using a queue data structure. Vehicle objects are enqueued and dequeued from a queue as a vehicle enters and passes a lane. Caps are placed on queues to simulate the limited length of lanes.