

# MIRAJ ALAM

## PLACEHOLDER

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### EDUCATION

Stony Brook University, New York

- BS in Computer Science
- GPA: 3.49/ 4.00

Class of 2017  
(Anticipated)

Stuyvesant High School, New York City

Class of 2012

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### SKILLS

Languages (in order of proficiency) – Java, C#, C, Python, C++, HTML, CSS, SQL, MIPS

Technologies – Netbeans, Eclipse, Visual Studio, Git, Unity Editor, GIMP, Blender, Camtasia, Audacity

Platforms – Windows, Mac OS, Linux

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### WORK EXPERIENCE

Nickelodeon, *Games Production Intern for Viacom*

Manhattan, NY JAN - MAY 2017

- Working on several ongoing projects. This includes gameplay recording using Camtasia, and cutting voiceover clips from shows for use in games. Creating and maintaining documents and spreadsheets that manage hundreds of games.
- Making character gameplay designs for a fighting game as an ongoing project for over 20 characters.

Khan's Tutorial, *Tutor for Students Grades 7 to 12*

Queens, NY DEC 2013 - DEC 2015

- Cooperated with other instructors to teach, advise, motivate, and mentor individual students as well as groups. Taught computer science, algebra, geometry, trigonometry, calculus, history, and writing.
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### RELEVANT PROJECTS

Unity Engine 3D Puzzle Adventure Platformer in C#

JANUARY 2017

- Used Unity Engine and Visual Studio to co-develop a wide variety of situations regarding game programming in C# that include collision response, game state management, and input response time.
- Designed 3 of the 5 levels in the completed game.

Unity Engine 2D Strategy Game in C#

AUGUST 2016

- Used the Unity Engine and Visual Studio to independently program collision response, game state, input, and A.I.
- Coded an implementation of the A\* path-finding algorithm from scratch.
- The game is complete with 12 levels and 3 options for different difficulties. Created all assets except for audio.

Skey Package Port For 9 UNIX Systems in C

MAY 2016

- Drastically revised the code of the Skey package, written by Neil M. Haller, in order to make it compatible with today's UNIX systems and C compilers. The project demonstrates an understanding of C programming, C Preprocessor macros, shell scripting, makefiles, regression test programs, and configuration files.
- Before using Autotools, the test scripts were coded from scratch to configure the program for 3 different systems (CentOS, FreeBSD, Solaris). And then Autotools were utilized to make sure the package can run on 9 UNIX systems.
- The 9 different systems varied in endianness, memory address widths (32-bit vs 64 bit), libraries, and data sizes.

Language Interpreter in Python

APRIL 2016

- Utilized the TPG parser, written by Christophe Delord, in order to write a program that can parse a file such that the program is an interpreter for a new programming language (limited scope compared to most languages).
- The language has support for dynamic typing, elementary operations, arrays, control flow, subroutines, return values, and recursion.

2D Platformer Game in C++

MAY 2015

- Worked with two other team members to create a 2D game using a bare bones engine in C++; the game utilized Box 2D, DirectX, and Lua Scripting.
  - Was approved as a competitor in the 12th Annual Game Programming Competition at Stony Brook University.
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### RELEVANT COURSEWORK

Databases, Fundamentals of Programming Languages, Advanced Systems Programming in C & Unix, Game Programming, Design Patterns, Data Structures, Computer Organization & Architecture, Systems Level Programming, Finite Mathematical Structures, Theory of Computation, Analysis of Algorithms, Operating Systems, Linear Algebra