## LUVNEESH MUGRAI

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### **EDUCATION**

New York University Tandon School of Engineering

Brooklyn, NY

**Bachelor of Science** – GPA: 3.91

May 2019

- Major: Computer Science
- Minors: Game Engineering and Integrated Digital Media
- Courses: Operating Systems; Introduction to Game Programming; Design and Analysis of Algorithms; Linear Algebra and Differential Equations; Data Structures and Algorithms; Discrete Mathematics; Object-Oriented Programming

### TECHNICAL SKILLS

Software: Linux/Unix; Microsoft Office; Git/GitHub; Android Studio; Unity3D; Adobe Creative

Cloud; Visual Studios; RPG Maker VX Ace; Xamarin Studio

Programming: C/C++; C#; Java; Python; HTML; CSS; JavaScript

# WORK/RESEARCH EXPERIENCE

### Gilly Works

A startup aimed at creating user-friendly, fun and entertaining apps for iOS and Android

### Co-Founder/CTO

Dec. 2016 – Present

■ Game Designer/Developer – Color Drift

■ Game Designer/Developer – Gilly Connect

# **Amalgamated Bank**

New York, NY

July 2017 – August 2017

# **Information Technology Intern**

- Created flowcharts and workflow diagrams, using Microsoft Visio, to breakdown the DC37 Process while working with my supervisor and Trust Operations division
- Performed internal validations and quality assurance on the eNar system to look for faults and bugs and report directly to the head software developer of the team
- Developed a program, using C# and SQL, to use on a weekly basis to parse over 30,000 ATM and credit card transactions, append data into database, and check for and identify credit card fraud

Rain Reality New York, NY

A student team of designers, developers, and marketers with a mission to help teachers integrate augmented reality to their students learning environments

## **Junior Unity Developer**

Jun. 2017 – August 2017

- Operated directly with co-founder to build an augmented reality physics simulator using Vuforia and Unity, including scenes for inelastic collisions and Newton's Cradle
- Implemented haversine formula to create a function to calculate distances in kilometers based on current and destination GPS coordinates for the Shaver's Creek app
- Work in conjunction with other intern to document instructions/protocols for and implement OpenCV, which provides greater freedom of control with image processing, as a back-end library for the expansion and redesign of Evolution Of Earth HoloLens project into a mobile application
- Combined visual novel aspects into a laboratory environment to develop 2 chemistry mini-activities

# New York City Department of Parks and Recreation

New York, NY

# **Game Design Intern**

July 2016 – Aug. 2016

 Coordinated with instructor to support content generation, implement teamwork dynamics and facilitated learning game design while guiding 25 teens to create games with RPG Maker VX Ace

#### **PROJECTS**

Color Drift – Unity/C# (2017)

- Color-based reaction game in which players tap circles the same color as the character in a test of reflexes and color perception, with over 25,000 cumulative downloads
- Developed space-efficient and optimal algorithm for user input and endless gameplay

### Gilly Connect – Unity/C# (2017)

- Multi-directional version of connect four, with single- and two-player modes
- Responsible for game logic for two-player mode, ball movement, and winner check

#### XNA 3D Space Shooter – C# (2016)

 Designed a 3-D asteroid shooter utilizing matrices to optimize smooth translations, rotations, and scaling during gameplay