# Nikki Woo

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#### **EDUCATION**

## **University of California, Los Angeles**

Computer Science and Engineering, B S

Expected Graduation: June 2021

GPA: 3.93 / 4.00

#### **HONORS**

Regents Scholar Tau Beta Pi Eta Kappa Nu Upsilon Pi Epsilon ECE Fast Track

#### **COURSEWORK**

#### **Current:**

Computer Network Fundamentals Formal Languages/Automata Theory Past:

Operating System Principles
Algorithms and Complexity
Software Construction Lab
Discrete Structures
Digital Design
Data Structures and Algorithms
Computer Organization (assembly)
Logic & Design of Digital Systems

## **SKILLS**

#### Languages:

Proficient: C, Python, C++,

**MATLAB** 

Familiar: HTML/CSS, C#, Arduino

**Software:** 

Linux, Emacs, LaTeX, Unity, Solidworks, Adobe Illustrator, Adobe Photoshop, Excel

**Hard Skills:** 

Soldering, Woodworking

## **OTHER INTERESTS**

Dance (contemporary, hip hop, ballet) Graphic Design

#### **EXPERIENCE**

## **AT&T Entertainment Group** | *Python*

Intern

June 2019 – Present

- Streamline power manipulation and functionality verification of Wifi router using GBIP, TCP IP, and serial communication.

## **Algorithmic Research in Information Flow Lab** | MATLAB

*Undergraduate Researcher* 

June – August 2018

- Analyzed secure capacity of wireless data transmission using 1-2-1 networks.
- Implemented various schemes of choosing paths for optimal information transfer within 1-2-1 networks via MATLAB, factoring in presence of wiretapper and path relationships.
- Compiled research into visual aid that won "Best Poster" at the Summer Undergraduate Scholars Program 2018 Poster Symposium.

### **PROJECTS**

**UCLA Game Lab: The Plane Ride** | *Unity, C*# January 2019 – June 2019

- Assemble and code a 2D pixel art long flight simulation survival game using the Unity software and C# scripts.
- Apply intended interactions between game objects to create working game inventory, scenes, and keyboard input-triggered animations.

**Asepsis** | *HTML/CSS*, *Adobe Illustrator* 

November 2018

- Designed and coded website that displayed real-time air quality indices at various UC campuses.

**Maze-Solving Arduino** Car | *Arduino*, *Soldering* March – June 2018

- Built a car capable of maneuvering walls and solving a maze on its own with a team of two others.
- Designed a PCB in EAGLE, programmed Arduino, and soldered components to produce a car system that could sense walls using IR transmitters and receivers and orient itself accordingly to read the end of a maze.

Chetvris | C++

May 2018

- Coded a variation of the classic game *Tetris* that utilized various data structures, recursion, and inheritance.

#### **LEADERSHIP**

## **University of California, Los Angeles**

Resident Assistant

May 2018 – Present

- Facilitate positive social interactions between residents while promoting an environment of safety and belonging.
- Enforce University Housing rules while supervising the mental and physical health of other students.

## Upsilon Pi Epsilon at University of California, Los Angeles

Tutoring Chair

May 2019 – Present

- Host test review and project hack sessions for various introductory and upper division CS classes for UCLA undergraduates.
- Guide individual CS students through CS projects and test problems.