# Shirley Qi

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## **EDUCATION**

University of California, San Diego B.S. in Mathematics-CS, GPA: 3.90/4.00	La Jolla, CA 2019–Current			
Monta Vista High School High School, GPA: 3.90/4.00	Cupertino, CA 2015–2019			
Courses Taken				
Linear Algebra (A+) MATLAB	MATH 18 Fall 2019			
Statistical Methods (A) R, Regression, Gaussian Distribution, Poisson Distribution, Chi-Squared Distribution	MATH 183 Winter 2020			
Cryptography I RSA	Coursera Course Winter 2020			
Basic Data Structures and Object-Oriented Design (A+) Java, ArrayList, LinkedList, Stack, Queue, Heap, BST, HashTable	CSE 12 Spring 2020			
Software Tools and Techniques Laboratory (A) Linux, Shell Scripting, MakeFiles, Vim, GDB, GitHub	CSE 15L Spring 2020			
Mathematical Reasoning (A-)	MATH 109 Summer 2020			
Computer Organization and Systems Programming (A-) C, ARM Assembly, Memory Hierarchy and Management	CSE 30 Summer 2020			
Enumerative Combinatorics (A) Permutations, Combinations, Recurrence Relations, Generative Functions	MATH 184 Fall 2020			
Deep Learning (A+) Pytorch, Image Classification, CNN, RNN	CSE 151B Fall 2020			

## FUTURE COURSES

Abstract Algebra MATH 100A-C

Fall 2020 –Spring 2020

**Advanced Data Structures** CSE 100

Winter 2020

Theory of Computability

CSE 105 Winter 2020

Design and Analysis of Algorithms

CSE 101

Software Engineering

Spring 2020 CSE 110

Spring 2020

### TEACHING

• Dance Teacher at Dance Academy USA

2016-2019

Taught young dancers basic technique and choreographed dances for the annual recital held by the dance studio

#### **PROJECTS**

Agent Based Programming for Bee Pollination (NetLogo, 2016)

Modeling the pollination patterns of bees and seeing how diversity of bees affect the reproduction of fruits.
 Created for the 2016 Synopsys Science Fair, won first place in category

Zika Virus (R, 2016)

• Modeled the transmission and spread of Zika Virus disease.

Project for UCD COSMOS program

Offloading on the Page: When does Note-taking Impair Future Recall? (Psychology, 2017)

Psychology experiment testing whether note-taking helps or impairs memorization of things.
 Project for UCSC Science Internship Program

Modeling the Effect of Alzheimer's on Learning Rate (Python, 2018)

• Simulated both synapse blockage and neuron death to see the effects on memory recollection.

Project for Boston University's RISE Program

Timer app for mobile phone (JavaScript, 2019)

• Timer app that "charges" you for leaving the app for a certain amount of time Created for the 2019 UCSD Hackathon

## Extracurricular Activities

• Member at Ascension

Competitive urban dance group at UCSD

2019–Current

• ASB Leadership

2018 – 2019

Managed all clubs on campus, including keeping track of club funds, club meeting minutes, and club applications. Also planned school-wide events such as Homecoming, dances, spirit weeks, and more.

• Choreographer for class dances

2015 – 2019

Choreographed dances for homecoming and more, as well as organizing practice and teaching groups of around 40 students who participated in the dance.

• Song Team at Monta Vista

2015-2017

Part of the Song team at Monta Vista. Cheered at games and competed at national competitions. Captain during second year on the team.

• Teacher Assistant at Dance Academy USA

2013-2017

Assisted	teache	rs with	their	dance	classes,	led	warm- $ups$	and	helped	choreograp	$h\ routines$ ,	for	teach	hers
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• Competitive Dancer at Dance Academy USA

2007-2019