

# AJINKYA MALHOTRA

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## EDUCATION

CSU Sacramento, B.S in Computer Science

Major GPA: 3.70/4.00

Expected Graduation: Spring 2019

## SKILLS

- **LANGUAGES/WEB SKILLS:** Java, C, C++, CUDA, HTML, CSS, Python, SQL, CLIPS, JavaScript, ReactJS
- **TECHNOLOGIES/TOOLS:** Git, Jira, Jenkins, Confluence, Gradle, TensorFlow, TFLearn, Nsight
- **APPLICATIONS IDE:** Eclipse, IntelliJ, MySQL, WinSQL, Visual Studio Code
- **OPERATING SYSTEMS:** Windows, Unix/Linux

## RELEVANT WORK EXPERIENCE

**SOFTWARE ENGINEER INTERN, VSP, SACRAMENTO, CA (Java, JBehave, CI/CD)**

Jun. 2018 – Present

- Currently developing and executing selenium, smoke and regression tests on the staging environment.
- Currently performing functional tests on the web portal application.

**GRADER, SACRAMENTO STATE, CA (Advanced Computer 3D Graphics)**

Aug. 2017 – Present

- Help, guide and grade students' assignments and answer questions during online discussions.

## ACADEMIC PROJECTS

**MOBILE LEARNING APPLICATION (Java, AWS, Android)**

Nov. 2018

- Deployed existing application on Android and Amazon AWS cloud using EC2 instance and RDS database.
- Configured classic load balancer to distribute network/application traffic across a cluster of servers.

**2D TILED IMAGE CONVOLUTION (CUDA, C, Parallel GPU Programming)**

Mar. 2018

- Implemented a tiled image convolution CUDA kernel which utilizes shared memory and constant memory.
- Input data is loaded/titled from global memory to shared memory, to reduce the number of reads.
- Constant memory is used to store the constant convolution mask data.

**HISTOGRAM (CUDA, C, Parallel GPU Programming)**

Apr. 2018

- Implemented an efficient Histogram algorithm using privatization technique for an input array of Integers.
- 4096 Histogram bins use unsigned 32-bit counters that are saturated at 127.

**FIREARM CLASSIFICATION (Python, CNN, TensorFlow, TFLearn)**

Oct. 2017 – Dec. 2017

- Designed a Neural Network (NN) using TFLearn to classify different types of firearms.
- Achieved 85% accurate results for 1000 epochs using the Alex NET architecture.
- For Machine Learning purposes, created and organized training and testing dataset.

**CHES MASTER (Java, Minimax, DLS, IDS)**

Sept. 2017

- Designed a human vs CPU chess-like game and created a computer player, using Minimax algorithm.
- CPU player is optimized through Alpha-Beta pruning, Depth Limited Search and Iterative Deepening Search.

**ATTENDANCE TRACKER (Java, API, HTML, CSS, JavaScript)**

Mar. 2017 – Jul. 2017

- Created an application by using Google Sheets API to record attendance.
- Developed a portal for students to register their attendance and for professor to keep track of attendance.

**CAR RACE (Java, Codename1)**

Dec. 2016

- Designed a CPU vs PLAYER, car race game by utilizing OOPs Concepts, MVC, design patterns and CN1.
- Developed GUI and key bindings to get user input for maneuvering the players' car.

## COURSES

Parallel Programming with GPU's  
Advance Alg. design and Analysis  
Data Structures and Alg. Analysis  
Computer Theory and Prog. Lang.  
Probability and statistics

Intelligent Systems  
Software Engineering  
Computer Organization  
Calculus I & II  
Applied Linear Algebra

Advanced Computer Graphics  
Object-Oriented Graphics  
Database Management Systems  
Differential Equations  
Business and Computer Ethics