Pedro Pachuca

CONTACT INFORMATION	**Github** **LinkedIn**	**Website** pedritopachuca@me.com

WHO AM I   I am an avid coder, computer enthusiast, teacher, quizbowler, and soccer player.

EDUCATION

Amador Valley High School, Pleasanton, CA

High School Diploma *Expected:* Summer 2019
- Weighted GPA: *4.4*
- Uneighted GPA: *3.9*

Online Coursework *All Passed with A grade*

Mechanics: Kinematics and Dynamics by MIT, Summer 2017

Cyberwar, Surveillance, and Security by University of Adelaide, Summer 2017

Computation Structures 1: Digital Circuits by MIT, Early 2017

Introduction to Real-Time Systems by IEEE, Winter 2016

Introduction to Linux by LinuxFoundation, Summer 2016

Las Positas College, Livermore, CA. *GPA: 4.0*

Computer Information Systems 50

SKILLS

Computer Programming

iOS Development

Proficient in Swift and Objective-C. Published or sold 7+ iOS Applications.

Web Developmentt

Proficient in HTML, CSS, and JavaScript. Familiar with PHP and SQL. Published 4 original websites.

Scripting

Familiar with Bash, PowerShell, and UNIX Shell scripting. Created complex, 400+ line cybersecurity script.

General Use Languages

Proficient in Java and Python. Familiar with C and C++. Created several games and puzzles in both lanaguages.

Computer Hardware and Security

Cyber Security

Proficient in Cyber Security for Windows OS, Windows Server OS, and Linux OS. Competed nationally in CyberPatriots. Achieved Platinum Division, won both regionally and locally, and earned national recognition for multiple years.

Computer Hardware

Expansive knowledge about Desktop/Laptop Computer Hardware including full construction (with or without full watercooling), logical optimization (RAID, Optane), and processor architecture. Created working business: Pedro's Computers. Hired to custom-build workstations, gaming rigs, and servers. Competed in hardware trivia and construction: regional winner.

IT Teaching

During School Year

Lead programming lessons on Java and version control with Git at local middle school for 20 weeks during the school year for multiple years. Lectured on and taught concepts ranging from basic fundamentals to in-depth pointers and stack/heap dynamics for about 25 students each session.

Lectured and taught on Beginner Swift, Advanced Swift, and Machine Learning for the 8-hour event ACE Code Day.

Lectured and taught Windows Family Computer Security to about 10 students in preparation for CyberPatriot Competition.

During Summers

Lead summer lectures on Java, HTML, and CSS at local library. Co-lead summer lectures on Scratch and Python. Attracted about 200 students each summer. Earned $500 scholarship for ACE Coding Club.

ACHIEVEMENTS

- First Place in Bay Area for 2016-2017 Nationwide CyberPatriot Competition.
- First Place in Bay Area for 2017 All IT Day at Las Positas College.
- Elite Cyber Defender Award at 2017 California Cyber Innovation Challenge Invitational.
- Second Place in California Cyber Innovation Challenge Invitational Forensics Event.
- Second Place in Cisco Cyber Cup 2017.
- Nationwide CyberPatriot Platinum Division for 2016-2017 and 2017-2018.
- Top 50 in NYU CSAW HSF competition 2017.
- 5/5 on 12 AP Exams including AP Physics C: Mechanics, AP Physics C: Electricity and Magnetism, and AP Calculus BC.
- 1560/1600 on SAT.
- 800 on SAT II Math 2 and Physics. 760 on SAT II World History and US History.

MAJOR PROJECTS

- **Swift:** *Synergy*: Created Organizational iOS App for Synergy Group at Renesas Electronics America. Sold to Reneas Electronics.
- **HTML, CSS, PHP, and JS:** *Personal Website*: Created full-fledged Website about myself and my interests.
- **Hardware:** *Desktop Builds*: Constructed multiple Desktop builds for family and friends. Turned into paid business.
- **Synergy C:** *Automated Sprinkler System*: Created programmable automated sprinkler system using Renesas DK-S7G2 Board.
- **Batch:** *CyberSecurity Scripts*: Created 400+ line Batch cript to secure Windows 7+ and Windows Server Machines.
- **JavaScript:** *Alexa Skills*: Created Two Amazon Echo Alexa Skills to provide chess and technology news interactively.
- **Java:** *Super Smash AI*: Improved on Machine Learning implementation of Super Smash Bros. Implements Genetic Algorithms and Neural Networks.
- **VMWare:** *CyberPatriot Images*: Created tens of CyberPatriot Practice Virtual Machine Images to teach with.
- **Java:** *Binary Genetic Algorithm*: Created sample Binary Genetic Algorithm to aid teaching.
- Most Source Code and 26+ more projects available on my **Github**

ACTIVITIES

1. **President:** *CCSC*: Competitive Computer Science Club involved in Cyber Security, Competitive Coding, and the promotion of girls in the IT World.

2. **President and Lead Lecturer:** *AceCoding*: Managed 7 volunteers and taught weekly Java and Git lessons to 40+ students at local middle school. Helped organize ACE Code Day: a local event with 15+ workshops as well as a hackathon that attracts 300 students. Taught Beginner and Advanced Swift as well as Machine Learning at ACE Code Day 2017. Also taught Java, HTML, Scratch, and Python workshops during the Summer.

3. **Software Developer:** *AVBotz*: Part of Software team for autonomous submarine capable of manipulating objects, aiming and shooting torpedoes, and navigating around obstacles. Competed in RoboSub competition.

4. **President:** *QuizBowl*: Participated in QuizBowl tournaments including The CalCup. Led practice sessions and prepared club for upcoming Tournaments.

5. **Engineer:** *Aviation*: Designed and built rocket to compete in the Team America Rocketry Challenge.

6. **Member:** *Math Team*: Participated in the AMC.

7. **Self-Study:** *USACO*: Competed in USA Computing Olympiad.

8. **Forward:** *BUSC*: Competed in U19 BUSC TriValley Soccer as well as various torunaments such as the California Founder's Cup.

ENDNOTE

Make sure to visit my **Website** at https://d2l73v4jsihpz3.cloudfront.net/ for more detailed information.