Jacques Fracchia

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OBJECTIVE
Seeking employment as a Software Engineer in the San Francisco Bay Area.

EDUCATION
University of California, Riverside   June 2020
Bachelor of Science, Computer Science   Chancellors Honors – 3.56 GPA
San Jose City College
Associates of Science, Mathematics   June 2017

TECHNICAL SKILLS
- Thrives working in a fast-paced dynamic team environment
- Excellent interpersonal and communication skills
- Strong analytical skills

Languages Proficient: C/C++, Java, JavaScript
Languages Known: Python, HTML5, CSS, PostgreSQL

RELEVANT COURSE WORK
Software Construction, Intro to Software Engineering, Software Testing and Verification, Database Management System, Intermediate Data Structures and Algorithms, Technical Communications, Unix System Administration.

RESEARCH EXPERIENCE
Research Assistant – Dr. Joshua Viers   December 2017 – August 2018
- Constructed lecture slides, class notes and resources for Engineering 180 Spatial Analysis and Modeling.
- Wrote detailed guides to instruct new students how to use ESRI's ArcGIS Pro and ArcMap software.

Spatial Analyst, VICE Labs   December 2017 – August 2018
- Lab assistant for the project Hydrologic Monitoring and Modeling for Management and Restoration Analysis.
- Surveyed Merced Vernal Pools and Grassland Reserve topography and hydrology using drones equipped with LiDAR and multi-spectral imagery.
- Using post processing tools in pix4D mapper, models were constructed of the surveyed areas to calculate the land's vegetation to monitor water movement from different watersheds.
- Designed a process to automate the downloading of sentinel and Landsat imagery over studied areas. JavaScript functions were used to process the imagery in Google Earth Engine to graph out the vegetation index over multiple watersheds from the last 10 years. The graphs produced verified the lab's imagery was accurate by having a variance of only 8.2%.

COMPUTER SCIENCE PROJECTS
Space Militia – First Person Shooter   UC Riverside – Spring 2020
- Space Militia is a first person shooter PC game built using Unity with influences from Halo and Half Life 2. The player must solve various puzzles while clearing out invading aliens to protect Earth and save humanity.

BeLively – belively.xyz   UC Riverside – Spring 2020
- BeLively is a company that offers intense workouts by professional instructors at home for fractions of the price yoga studios charge. Instructors can upload daily videos for students and offer 1-on-1 sessions with a trainer.

R'Budget – rbudget.xyz   UC Riverside – Fall 2019
- This is a web application that tracks your monthly expenses and overall budget. The back end was built using Google's Firestore Firebase and the front end was written in JavaScript, HTML and CSS.

Spelling Game - Embedded Systems   UC Riverside – Spring 2019
- Spelling Game tasks players to spell words out that are displayed quickly on a screen. This project was programmed on an ATMega1284 micro controller in C, utilized a LED Matrix, LCD screen, joystick and buttons.

REFERENCES
- Dr. Joshua Viers – Engineering Professor – jviers@ucmerced.edu - (209) 591-8423
- Anna Rallings – Associate Researcher and Lab Manager - arallings@ucmerced.edu
- Anna Fryjoff-Hung – GIS Specialist - afryjoff-hung@ucmerced.edu