

Nicolas Ventura

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Education

University of California, Davis

Fall 2017 - Spring 2021

Mechanical Engineering | Bachelor of Science | GPA: 3.8/4.0

Deans Honors List 2019, 2018

Skills

General English French Computer Aided Design Web Design Game Design 3D Printing

Software Visual Studio PHPMyAdmin CPanel Unity3D Perforce Swarm Docker IntelliJ Pro

Computer Languages C# PHP JavaScript CSS Java C

Work Experience

Server Engineering Intern - EA Capital Games

Jun - Sep 2020

Wrote a technical design document conforming to the Agile methodology to plan out a player spending heatmap for Star Wars: Galaxy of Heroes. Built a full stack dashboard application with Spring MVC backend and jQuery and Websocket frontend. Overcame technical challenges with using Redis database by helping rewrite server boilerplate code. Delivered an application that managers can use to visualize player response to new content releases around the world in real time.

Facilities Engineering Intern - Lawrence Berkeley National Lab

Jun - Aug 2019

Conducted field surveys, located mechanical assets such as pumps, heat exchangers, and chillers, and created piping and instrumentation diagrams in AutoCAD for lab buildings on site at LBNL. Determined critical assets for lab work under supervision of a mentor. Streamlined the workflow of facilities engineers at LBNL by compiling asset schedules into a Smartsheet document.

Projects

HackDavis - Seize

Feb 2019

Designed and constructed Seize in a team of 3 in under 24 hours. Created a website for doctors to use, detailing patients undergoing medical emergencies, with the emphasis on seizures. Wrote JavaScript and PHP code to communicate with the Google Maps API to display a map of the afflicted patients from an online database of patient records. Designed hardware to check a patient's pulse and send data to the database. Simulated our hardware concept in Python.

AggieTexts

Jan - Sep 2018

[Retired, 10 users, 1 sale] Wrote HTML, CSS, and PHP code as the sole designer and developer of AggieTexts.com. Enabled UC Davis students to connect online to schedule times and places to meet to buy and sell their textbooks.

Weather Display Box

Jun 2018

Designed a weather display box in a team of 2 that would show current weather conditions. Wired circuits to light up specific LEDs during certain weather conditions. Wrote C++ code for an ESP8266 (microcontroller similar to Arduino) to interact with the Openweathermap.org API and parse data and update the device in real time.

Map Generator

Dec 2017

Coded a map generator for a Risk-style game (warzone.com) that interfaces with the game's web API and entirely automates a mapmaking process. Wrote C# code that generates a 2D map, labels territories, divides map into continents and islands, and handles data about connections between territories.