De La Petrillo-Foster

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EDUCATION

Williams College
COMPUTER SCIENCE 2023
cGPA: 3.70 OUT OF 4.0

East Side Community High School
SALUTATORIAN 2019
cGPA: 4.0 OUT OF 4.0

RELEVANT COURSEWORK

CSCI 334 Programming Languages
CSCI 256 Algorithm Design
CSCI 237 Computer Organization
MATH 200 Discrete Mathematics
CSCI 136 Data Structures

SKILLS

Code
Java
Dart/Flutter
C++
C
HTML
CSS
JavaScript
Python

Editor
Atom
Vim

Hardware
Raspberry Pi
Arduino
Circuit Design
Soldering

Media
Blender
Illustrator
Photoshop

Languages
English
Japanese (Elementary)

WORK EXPERIENCE

Igloo NEW YORK, NY MAY—JUNE 2020

- Rapidly prototyped UI/UX concepts in Figma
- Designed Igloo's frontend using the references created in Figma to create a intuitive, clean, and responsive UI
- Implemented a NoSQL database with email authentication to remotely and securely store user data, and dynamically stream data to the client-side application
- Developed and abstracted a database in Flutter/Dart to handle all communication between the remote server and the client-side application

Purple Bike Coalition WILLIAMSTOWN, MA SEPT 2019—PRESENT

- Facilitated a rental program that provided free transportation for those in need on campus
- Hosted open hours for students and faculty to have their bikes fixed free of charge, or come to learn more about fixing and maintaining bikes
- Worked in conjunction with the Zilkha Center for Sustainability, all bikes owned and rented by the PBC were found or donated, and recycled

East Side Community High School NEW YORK, NY SEPT 2017—JUNE 2019

Physics and Computer Science Teaching Assistant

- Assisted in the teaching, tutoring, and grading of the work of seniors in the subjects of Computer Science and Physics five days a week
- Led a class of 10 seniors every Friday in reviewing material, monitoring examinations, and conducting labs and problem sets

TECHNICAL PROJECTS

Alien Defender JAN 2020

- Programmed a Bullet-Hell style game in the Pico-8 virtual console using Lua
- Created a tile-based collision detection system to determine death and bullet reflection
- Implemented dynamic difficulty levels based on the user's score

TCP/HTTP Server DEC 2019

- Built a non-blocking, asynchronous TCP/HTTP server in C and C++
- Maintained strong modularity and encapsulation principles through usage of namespaces, classes, and access modifiers
- Designed and implemented both TCP socket streaming and HTTP request handling
- Exposed clean server APIs for connection handling
- Explored blocking, non blocking, and concurrent execution paradigms to implement a variety of optimizations

CookBooks: Offline Financial Tracking Application DEC 2019

- Developed an offline financial tracking application in Java using Android Studio
- Conducted user research across local community to understand needs and develop user stories
- Utilized RecyclerView with custom Adapter to enable view recycling when displaying financial transactions
- Persisted data with SQLite using Room abstractions for access and manipulation and FTS4 for full text indexing and querying
- Utilized app-specific external storage for other large data, such as uncompressed images

AWARDS

- QuestBridge Scholar 2019
- CollegeBound Initiative College Ambassador of East Side Community High School
- Row Abroad (Germany and Spain) Full-Scholarship recipient
- Published in "Treasured", The America Library of Poetry