Andrew J. Cervantes

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Tufts University   Permanent Residence
24 Burget Avenue   20 Eddlewood Place
Medford MA, 02155   Mount Laurel, NJ, 08054

Education

Tufts University School of Engineering   Medford, Massachusetts

Bachelor of Science in Computer Science, anticipated May 2021

GPA (as of September 2019): 3.56

Work / Personal Projects

➤ Database de-duplication: Software program written in C and then transferred and adapted for use in R for the New Jersey Department of Health. The program used an algorithm based on several patient variables to identify duplicate entries in the state's notifiable disease database. The program resulted in a list of unique patient identification numbers and a percentage that represented the probability that two person entries were the same person and should be merged. A secondary part of the program identified duplicate disease "cases" assigned to one person, which also were subsequently merged.

➤ AboutMe webpage: Software written in html/CSS and used as a platform to provide a centralized location to highlight and share projects and information with interested parties.

School Projects

➤ GERP: Creating a program that performs the grep function, searching for the location of a word in directory

➤ Breadth First Search: Creating the search to find the closest connection between two vertices in a graph

➤ GitHub link: https://github.com/AJCervantes?tab=repositories

Skills

➤ Programming languages: C, C++, html, R, VHDL, MATLAB, Visual Basic, Mathematica
   o Experience with Data Structures, Machine Learning, and Assembly Language
   o Currently learning: Python, JavaScript, Latex, C#

➤ Basic knowledge of the Unity Game Engine

➤ Proficient in Microsoft Office (Word, PowerPoint, Excel)

➤ Working as part of a team on various projects (e.g., developing a Space Invaders game with an FPGA and designing a silent vibrating alarm clock prototype)

➤ Training in light and heavy machinery operation, including laser cutting, drill press, and 3D printing

Employment History

HEALTH DATA SPECIALIST| MAY – AUGUST 2019
NEW JERSEY DEPARTMENT OF HEALTH INFECTIOUS & ZOONOTIC DISEASE PROGRAM, TRENTON, NEW JERSEY *(hired through contract with 22nd Century Staffing Techologies)*

- Created a database de-duplication program to identify duplicate records, perform merges, and improve data quality and database efficiency.
- Designed both a program and a logic algorithm, involving many iterations and de-bugging in order to create an optimal product.
- Developed an easy-to-understand, step-by-step user protocol/training guide for non-computer scientists to use the program as part of an ongoing data improvement intiaitive.
- Gave a presentation on the program/algorithm to senior program staff and shared ideas with information technology programmers for how the algorithm could be incorporated as a template into the state's notifiable disease database.
- Merged approximately 7,000 duplicate person records across 3 communicable diseases (Hepatitis C, Hepatitis B, and Lyme).

FRONT DESK ASSOCIATE | 2018 – PRESENT
TUFTS UNIVERSITY, MEDFORD, MASSACHUSSETS

- Maintain front desk area, providing information to students and parents about financial aid and class enrollment.
- Respond to telephone and in-person information requests.
- Handle private information including SSNs, bank information, and academic standing.

LIFEGUARD/SWIM INSTRUCTOR & CAMP COUNSELOR | MAY - AUGUST 2015 – 2018
EXCEL LEARNING CENTER, MOUNT LAUREL, NEW JERSEY

- Summer 2017 – Summer 2018: Head lifeguard/morning and evening shift counselor
  - Help to keep the kids active and engaged at camp
- Summer 2015 – Summer 2016: Co-lifeguard and part-time counselor
  - CPR and First Aid certified

Clubs & Activities:

- <u>Electric Racing Club:</u> Worked on the cooling system and electrical protection equipment; attended the Formula Hybrid Competition in New Hampshire
- <u>Team Captain:</u> Captained the high school tennis and soccer teams
- <u>Other Activities/Hobbies:</u> Hiking, travelling, basketball, tennis, wake surfing, intramural sports, history (particularly greek and european history)