JASON S. ZAVALA

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EDUCATION

Dec. 2021 **Computer Engineering, University of Utah**   Salt Lake City, UT
Relevant course work:
- Algorithms and Data structures
- Discrete structures
- Computer Architecture
- Software Development

EXPERIENCE

2018 - Present **University of Utah, Department of Family and Preventive Medicine**   Salt Lake City, UT
Database Developer
- Analyze departmental, division, database needs. Research, built, and delivered custom database models, and scrubbed data
- Analyzed previous department content delivery network. Previous model did not have consistency across department platforms. Researched and deployed custom solution utilizing Django web framework, JavaScript, and HTML. Application utilized Wunderground weather API and BeautifulSoup (Python package for parsing HTML and XML) to extract news from multiple internet sources. This solution saved the department $179 per TV.
- Deployed production and development apache webserver.
- Developed research dashboard that would track research grant proposals progress. Displayed data with Chart JS, an open source JavaScript chart library
- Analyzed department infrastructure needs, deployed Flask, and then Django to manage department intranet

2015 - 2018 **University of Utah, Department of Family and Preventive Medicine**   Salt Lake City, UT
Computer Technician
- Provide computer support by troubleshooting and correcting problems with computer hardware or software applications
- Maintain databases, network accounts, and continuously build up domain specific knowledge

SKILLS/ACCOMPLISHMENTS

- Great depth of experience in C/C++, Java and strong command of Object-Oriented Design.
- 2019 MX.com programming billboard puzzle winner. Invited to dinner with MX co-founder/CTO.
- Fluent in English, Spanish and conversational in Mandarin Chinese

PROJECTS

- **WaterTrack (beta)** – Created app to track users daily water intake. Water intake over time is then stored using SQLite and trends overtime are visualized using charts iOS (open-source charting iOS framework)
- **TL_DrBot** – Codechella 2020 Twitter Hackathon submission. This bot (@TL_DrBot) uses natural language processing to parse news articles, then calculates the occurrence of each word in the text. Each word is assigned points depending on their popularity and spatial locality. Sentences are then built using these weighted words and a summarized version of the article is returned. This bot is also designed to bypass paywalls on popular sites such as the New York Times, and Washington Post.
- **Discord Calvin comics strip bot** – Used BeautifulSoup (Python package for parsing HTML and XML) to scrape Calvin and Hobbes comic strips from the web, this program gets the current date, finds the relevant Calvin and Hobbes comic strip, and send the comic into the appropriate channel
- **Pi-Hole** – Linux network-level ad and internet tracker blocking application which acts as a DNS sinkhole. Deployed on home network using raspberry pi.
- **AgCubio** – Created an asynchronous client-server architecture-based game in C# similar to the popular online game Agar.io. Collaborated with a partner to design the server, client, MySQL database, and to test the program. Developed the client, game world, player logic, and database aspects of the project.