FRANCES TSO

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https://github.com/FWYT | https://www.linkedin.com/in/fwtso

EDUCATION

Carnegie Mellon University
2013 - 2017 (expected)
B.S. Computer Science
B.S. Economics
GPA: 3.33/4.0

SKILLS

Programming
Python, Java, HTML, Javascript, SQL, PHP, C++, C, SML, Assembly, JQuery, CSS

Software
Solidworks, Photoshop, Unity, Unreal, Audacity, Android

Hardware
Arduino, Robotis CM9.04C, Dynamixel motors, Occulus Rift, Myo

Languages
English(Fluent), Cantonese(Fluent), Mandarin(Fluent), Spanish(Reading)

HOBBIES/AWARDS

- 1st Place Women's Billiards, Nationals Qualifier (2015)
- 2nd Place UM Team Pool Championships (2015)
- Alaska State Representative at MTNA Violin Competitions (2013)

PROJECTS

- Virtual reality picture museum with Occulus Rift
- Billiards simulation using OpenGL, event-based physics, and Euler methods
- Virtual machine for C0, a C based language.

WORK EXPERIENCE

Bossa Nova Robotics   06/2016 - Present
Software Development Intern - Pittsburgh, PA

- Created an interactive data visualization for the customer by building backend REST services to gather and send voluminous data to the front end service.
- Allowed users to freely structure their queries by creating reusable dynamic SQL query processing for efficient data management.
- Extended the Katharsis JSON library to support JSON Web Tokens and LDAP authentication for data security.

NASA Ames Research Center   05/2015 - 08/2015
Software Development Intern - Mountain View, CA

- Built web app as a full stack developer to preserve NASA research data and to facilitate collaboration between ~200 researchers.
- Utilized Human-Computer Interaction principles to improve intuitiveness for the on-boarding process.

Robotics Institute   08/2015 - 05/2016
Undergraduate Research Assistant - Pittsburgh, PA

- Designed 3D-printed 4- and 5- legged robots using Solidworks under Dr. Stelian Coros; presented on Bell Media, Canada.
- Used Robotis CM9.04 microcontroller board and Dynamixel motors to control robot movements.

Center for Victims (CV)   01/2015 - 05/2015
Volunteer Software Developer - Pittsburgh, PA

- Led CMU design team to develop Android app that notifies crime victims of their offenders' statuses, decreasing alert time by 1 hour.
- Created web app that allow CV employees to search/update crime info, replacing the original time-consuming paperwork system.

LEADERSHIP EXPERIENCE

CMU Solar Racing   12/2014 - Present
Vice President - Pittsburgh, PA

- Led 4 design teams totalling 30 members in constructing 20 ft solar boats. Received Most Improved Team award in 2014 Solar Splash Championships.
- Managed organization finances of over $30K and generated $5,500 though grant applications and fund-raisers.