

MARIE CHANTAL T. TAN



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Owings Mills, MD

EDUCATION

University of Maryland, Baltimore County (UMBC)

2017 — 2021

Bachelor of Science in Information Systems, Minors in Mathematics & Statistics

SPECIALIZATIONS

- Mixed Reality (AR/VR)
- Computer-Aided Designing (CAD)
- Animations
- Data Visualization
- Graphic Designing
- Web Designing

SKILLS

- C/C#/C++
- R
- Python
- HTML/CSS/JS
- Scheme
- Julia

DEVTOOLS

- Unity, Unreal
- Maya (Renderman), Blender, SketchUp
- RStudio, MatLab, Jupyter, Anaconda
- APIs
- ArcGIS
- Photoshop

PROFESSIONAL EXPERIENCE

Student Researcher — Weill Cornell Medicine

August 2019 — Present

- Work with graduate and undergraduate students to create an AR program that provides quantitative feedback on a catheter's position within the heart of a patient
 - Research on emerging surgical technologies and AR trends in order to create a competitive design
- Unity, Microsoft HoloLens*

Software Programming Intern NASA Goddard Space Flight Center

May 2017 — August 2017

- Convert HDF4 files to HDF5 so that satellite data is compatible with up-to-date programming libraries
 - Engage with the Julia programming community and independently read documentation to better understand geospatial programming with Julia and HDF-EOS tools
- HDF-EOS/HDF4/HDF5, Julia*

Software Testing Intern NASA Jet Propulsion Laboratory

September 2016 — December 2016

- Develop new approaches to manage, manipulate, visualize, and analyze big data in physics so that meaningful information can be extracted
- Conduct independent investigative research on open source devtools in order to determine which provide the most robust and precise physics simulations; which tools can be integrated with each other; and what the strengths and weaknesses of each tool are

Unity, Unreal, Maya (Renderman), Blender, MatLab, SciLab, Jupyter, Advanced Simulation Library (ASL), Open Source Physics (OSP), NASA Data Portal

COLLABORATIVE PROJECTS

WLCMD.org (Web App) — The Women's Law Center of Maryland

September 2019

The original website was designed before mobile usage was prevalent. Thus, the site needed to be updated so that users can find information on both web and mobile platforms. Collaboration was done with professional designers and developers.

HTML/CSS/JS

LivePangaea (Web App) — PennApps XX

September 2019

This application makes donating a more fulfilling and social experience through connecting its users to the people whose lives they've impacted. It uses social networking, data visualization, and mobile payments to bring communities and charities closer together. Collaboration was done with other undergraduates who were inexperienced in web development and had diverse coding backgrounds.

Bootstrap, RStudio, Google (Firebase/Trends), Facebook, PayPal, GlobalGiving API