Jackie Cho

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EXPERIENCE

Senior Software Engineer
NASA JSC   📅 08/2021 - Present 📍 Houston, TX
- Develop embedded flight software to calculate and manage +2000 spacecraft resources with **C, Docker**, and **VxWorks**.
- Lead closed-loop software integration cycles, designing +30 use cases and delivering +10 software releases.
- Perform continuous integration, building **CI/CD** pipelines and regression test suites in an **Agile** workflow.
- Verify +120 software requirements with **CTF** and **JSON,** achieving app completion 2 months ahead of schedule.
- Decompose and architect system-level requirements into +100 component-level requirements in **Jira** and **Confluence.**
- Coordinate and collaborate with stakeholders and commercial partners, presenting at Gateway Critical Design Reviews.

Software Engineer Co-op
NASA MSFC   📅 05/2020 - 08/2020 📍 Huntsville, AL
- Automated verification of +10k flight software test cases with deep learning models in **Keras** and **Scikit-Learn**.
- Designed a **REST API** to optimize model training/testing, reducing time & local memory usage by 10%.
- Automated feature extraction and data preprocessing with **Python** and **Pandas**, reducing time consumption by 70%.

Software Engineer Co-op
NASA MSFC   📅 01/2020 - 05/2020 📍 Merritt Island, FL
- Developed a WPF app in **C#** and **SQL** to automate management and scheduling of +100 assets.
- Implemented touch-controls and UI/UX portability to the Microsoft Surface Hub using **.NET**.
- Automated recording of flight software simulation results with **Django** and **Jinja2**, improving workflow by 60%.

Software Engineer Co-op
NASA JSC   📅 05/2019 - 08/2019 📍 Houston, TX
- Developed a **C/C++** simulation software for a microcontroller, eliminating the need for hardware for testing.
- Developed a tone player in **C** for the spacesuit to alert astronauts of detected faults during Extravehicular Activities.
- Built unit tests in **CppUnit** with 100% code coverage for a Class-A safety critical software.

Software Engineer Intern
NASA JSC   📅 08/2018 - 05/2019 📍 Houston, TX
- Developed a Recurrent Neural Network with **MATLAB** to classify pilots' cognitive state to optimize training routines.
- Automated data extraction with **MongoDB** and **TCP/IP**, reducing preprocessing time by 20%.
- Developed a Wiki extension with **D3.js**, **Docker**, and **PHP**, improving navigation and visualization of 60,000+ nodes.
- Implemented backend with embedded database in real-time system using **Python**, **SQL** and **cronjobs**.

Software Engineer Intern
NOVO Consulting LLC.   📅 06/2018 - 08/2018 📍 New York, NY
- Developed a full-stack web application to automate surveys and games with **React,** and **Node.js**, reducing resource consumption by 80% and workflow to a near paperless system.
- Led project development using **Agile** methodology and organized weekly SCRUM meetings.

Software Engineer Intern
NYU ORLHS   📅 01/2018 - 06/2018 📍 New York, NY
- Developed and designed full-stack web applications that manage housing applications of +50k students.
- Improved UI/UX with **HTML/CSS3**, **JavaScript**, and **Bootstrap**. Compiled and deployed with **ASP.NET** and **AWS**.

SKILLS

Languages   Python, C, C++, C#, SQL, JavaScript, HTML5, CSS3, MATLAB, Java, PHP
Technologies Node.js, React, D3.js, MySQL, TensorFlow, Scikit-Learn, Bootstrap, Django, .NET, REST
Other   Docker, Linux, Git, CI/CD, VxWorks, JIRA, Agile, CFS, CMMI, Doxygen, MagicDraw, Confluence

EDUCATION

B.A. Computer Science and Mathematics   **GPA**: 3.65 (Dean's Honors)
New York University   📅 08/2016 - 12/2021 📍 New York, NY