Joshua E. Yu

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EDUCATION

Georgia Institute of Technology   **Aug 2023 – Present**
M.S. Computer Science (expected May 2026)   Current GPA: 4.00

- o Artificial Intelligence
- o Graduate Intro to Operating Systems
- o Data Structures and Algorithms Seminar
- o Human-Computer Interaction

University of California, Los Angeles   **Sep 2015 – Jun 2019**
B.S. Chemical Engineering   GPA: 3.90 *(summa cum laude)*

- o Intro to Computer Science I/II
- o Intro to Computer Graphics
- o Multivariable Calculus
- o Linear Algebra
- o Differential Equations
- o Process Dynamics and Control

SKILLS

- **Programming Languages:** C, C++, Java, Python, JavaScript, GLSL, PowerShell, MATLAB, VBA
- **Technologies:** Git, GitHub, Bash, Linux, OpenGL, Docker, Windows Hyper-V, Jupyter Notebook

PROJECTS

Simple Graphics Engine in OpenGL – C++, OpenGL, GLSL
- Building a 3D graphics engine utilizing deferred rendering to implement lighting and shading of scene objects
- Features model loading, shadow maps, ambient occlusion, and postprocessing such as HDR, bloom, and FXAA

Multithreaded Getfile Server – C, Linux, Docker
- Developed a getfile protocol between multithreaded client, proxy, and cache programs where the server fulfills client file requests from its cache or the Internet; made in an Ubuntu Docker container using the C POSIX library

Venmo User Review Analysis – Python
- Analyzed common themes in Venmo user reviews by using Python's NLTK package to count word stems and correlate stem frequency with review rating; used results to inform a conceptual redesign of the app's interface

"Spider-Man" Minigame – JavaScript, WebGL
- Collaborated with a team to develop a "Spider-Man" minigame where players jump, web-swing, and climb walls to navigate obstacles and gather coins; used the WebGL JavaScript API to render 3D graphics in a web browser
- Developed third-person player, camera, and wall-climbing mechanics by manipulating model and view transforms

EXPERIENCE

Takeda Pharmaceutical Company

Automation Engineer II – Los Angeles, CA   Aug 2021 – Jun 2024
- Serve as manufacturing engineer and system administrator of DeltaV control system for plasma purification site
- Segment and upgrade network infrastructure to improve reliability and uptime of 100+ operator terminals
- Write and test a PowerShell script to automatically disable inactive users, reducing administrative workload
- Analyze and merge Hyper-V virtual hard disks using PowerShell to free up space in a Cluster Shared Volume
- Implement and test a DeltaV configuration change to reduce vessel cleaning cycle time by up to several hours

Process Engineer (Operations Development Program) – Lexington, MA   Jan 2021 – Aug 2021
- Supported tech transfers, optimization projects, and validation protocols for downstream biologics equipment

Manufacturing Supervisor (Operations Development Program) – Los Angeles, CA   Apr 2020 – Jan 2021
- Supervised and trained 8 manufacturing operators while supporting engineering/science teams to ensure successful production of a public service orphan drug used to treat infant botulism made just once every 5 years

Laboratory Scientist (Operations Development Program) – Los Angeles, CA   Jul 2019 – Apr 2020
- Developed an Excel VBA application for scientists to build and execute electronic runsheets for lab experiments