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Nicholas Larsen
Software Engineer Sr

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EDUCATION

Master of Science in Computer Science, Dallas, TX (4.0) | **Concentration:** AI/ML
Southern Methodist University | December 2022
Bachelor of Science in Computer Science (3.670) | **Minor** Mathematics
Texas Christian University, Fort Worth, TX | May 2018

CERTIFICATIONS

Secret Security Clearance | Current
CompTIA Securty+ Certification | July 2023
Lockheed Martin Internal AI/ML Fundementals | April 2023

TECHNICAL EXPERIENCE

Software Engineer Senior | **May 2022 - Present**
Lockheed Martin | *Fort Worth, TX*

- Architect Catia V5 and 3DX environments with proprietary software, 3rd party applications, cooperate settings, and other enhancements giving Lockheed designers an edge on the competition.
- Implement automated pipelines for Catia V5 and 3DX (V6) customizations using GitLab Pipelines used across the CAD/CAM organization enabling DevOps in a legacy environment.
- Design and implement continuous integration/continuous development processes for 50+ CAD/CAM applications to air-gaped networks and unclassified networks.
- Develop and support applications that configure Catia 3DX and V5 environments with proprietary software and settings.
- Manage coding standards and approve code reviews for development of 3dx and V5 custom applications

Software Engineer | **July 2018 - May 2022**
Lockheed Martin | *Fort Worth, TX*

- Maintained an application for releasing design engineer's drawings and 3-D models. Leveraged an Oracle database for storing the CAD Data, meta-data parts and positions on different airplanes, and release state of drawings.
- Developed features for designers to create retro-fit 3-D models to mimic elements of a previously designed mod-kit drawings and modify spacial query functions to consider the instructions when querying 3-D space.
- Supported the effort to migrate programs from outdated Catia V4 systems into our Catia V5 system for drawing release and 3-D design. Specifically, support processes that make this an easy transition for legacy programs.

SKILLS

AI/ML skills: Numpy, Tensorflow, pyTorch
Programming Skills: C++, C#, python

PERSONAL/SCHOOL PROJECTS

GAN Training Experiment | **GitHub**
An attempt at a novel approach to GAN training. | Skills: GANs, numpy, pyTorch, matplotlib

Classifying Brain Cells | **GitHub**
Graduate School Lab work attempting to classify Acut Lymphoblastic Leukemia | Skills: numpy, tensorflow, sklean

Understanding Convolutional Neural Network | **GitHub**
A study of how VGG classifies images | Skills: CNN, tensorflow, sklean, Image Classification

Style Transfer with pre-trained VGG | **GitHub**
Use a pre-trained VGG model to apply ART styles to faces | Skills: CNN, tensorflow, OpenCV

Personal Project | **Eurche in Godot**
My first attempt at game development. This project will lead into making a Eurche rogue-like game.