

SALMAN SHAH

STAFF SOFTWARE ENGINEER

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<https://salman-a-shah.github.io>

SKILLS

GENERAL: Software Engineering, Machine Learning, Mathematical Modeling

PROGRAMMING LANGUAGES: C++, Python, Bash

TOOLS: Tensorflow, Keras, OpenCV, Docker, Linux, AWS, Git

EXPERIENCE

STAINLESS AI

Staff Software Engineer | May 2020 - Present

- Researched and developed computer vision solutions using a combination of deep learning, OpenCV and mathematics
- Optimized a C++ based multi-model, multi-GPU AI software and improved runtime efficiency by over 600%
- Deployed a dockerized inferencing software that uses AWS infrastructure and is scalable through Amazon ECS
- Trained neural networks for various tasks, including image classification, object detection, & semantic segmentation

WIDE MERCHANT GROUP

Machine Learning Engineer | Sep 2019 - Mar 2020

- Bootstrapped a data science department from scratch
- Deployed into production a machine learning based web application that increased underwriting efficiency by 25%
- Engineered both frontend & backend of the final ML product using Flask & Python and deployed into production on IIS
- Designed and deployed an API using C#, ASP.NET & SQL to provide restricted data access to mobile developers

Commercial Underwriter | Jul 2018 - Feb 2019

- Analyzed the risk and profitability of providing short term loans to small businesses
- Worked closely with developers to realize software & operational changes that encourage data based decision making
- Collaborated with sales agents to bring in and close large funding deals

VOLUNTEER EXPERIENCE

XSCAPE GAMES

Software Engineer | Jun 2019 - Mar 2020

- Developed a controller system using Python to wirelessly drive an RC car through a driving simulator
- Engineered a motion control system that responds to telemetry data and simulates the RC car driving experience
- Finalized a demonstrable working prototype for the company's product

PROJECTS

IMAGE SUPER-RESOLUTION

Capstone Project at Springboard | Dec 2019

- Designed and trained a residual neural network to increase the resolution of images 2x while preserving 90% of its quality
- Built a trainable image dataset from scratch with python using web scraping and image processing libraries
- Deployed the model online to be used as a free service
- **SKILLS USED:** Keras, tensorflow, flask, python, HTML, CSS, web scraping, image processing, neural network

AUTOENCODER

Group Project at UCLA | Jun 2018

- Engineered a standard autoencoder using Keras to encode and decode images from the MNIST dataset
- Implemented gaussian mixture sampling within the latent space to generate images of handwritten numbers
- Completed an extensive report on our findings, understanding, and implementation (see website for paper)
- **SKILLS USED:** Keras, matplotlib, python, Gaussian mixtures, neural network, data visualization, dimensionality reduction

EDUCATION

CERTIFICATION, MACHINE LEARNING ENGINEERING CAREER TRACK

Springboard | Apr 2020

BACHELOR'S OF SCIENCE, MATHEMATICS

University Of California Los Angeles | Jun 2018

CERTIFICATE OF SPECIALIZATION IN C++ PROGRAMMING

Orange Coast College | Sep 2016