SALMAN SHAH
MACHINE LEARNING ENGINEER

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SKILLS
GENERAL: Machine Learning, Software Engineering, Data Science
PROGRAMMING LANGUAGES: Python (advanced) | C#, ASP.NET, SQL, C++ (Intermediate) | HTML, CSS (beginner)
TOOLS: Scikit-learn, Pandas, SQL, Flask, Keras, Tensorflow, Matplotlib, Git, Visual Studio, Vim

EXPERIENCE
MACHINE LEARNING ENGINEER — WIDE MERCHANT GROUP | 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

SOFTWARE ENGINEER — XSCAPE GAMES | 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

COMMERCIAL UNDERWRITER — WIDE MERCHANT GROUP | 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

MACHINE LEARNING 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

AI UNDERWRITER — PERSONAL PROJECT | JUN 2019
- Developed a small-scale merchant cash advance underwriter in Python by using random forests and adaptive boosting
- Designed a process for generating realistic, easy-to-label, synthetic data using random number generators and built a synthetic dataset from scratch
- **SKILLS USED:** Pandas, scikit-learn, matplotlib, python, random forest classifiers, adaptive boosting

SENTIMENT ANALYSIS — PERSONAL PROJECT | APR 2019
- Explored sentiment classification on a movie review dataset using naive Bayes classifiers, SVMs, and neural networks
- Evaluated and optimized hyperparameters for each model
- Detailed the results, implementation, and recommendations on a blog post
- **SKILLS USED:** Scikit-learn, pandas, matplotlib, python, support vector machines, naive bayes, 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