# Parker Pan

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## EDUCATION

**University of Southern California (USC)**  Los Angeles, United States | 09/2022 – 06/2024
Master's Degree, MSc in Analytics, Viterbi School of Engineering, GPA 3.7

**University of Liverpool (UOL)**  Liverpool, United Kingdom | 09/2020 - 06/2022
Bachelor's Degree, BSc in Mathematical Finance, Upper Second Class with Honors

**Xi'an Jiaotong - Liverpool University (XJTLU)**  Suzhou, China | 09/2018 - 06/2020
Bachelor's Degree, BSc in Mathematical Finance (Two years in China and Two years in the UK)

**University of California, Berkeley (UCB) -** Summer School  Berkeley, United States | 06/2019 - 09/2019

**Core Courses:** Data Management / Mining / Analytics / Visualization, Machine Learning, Deep Learning, Operations Research, Stochastic Theory, Queuing theory, Graph Theory, Mathematical Finance (Quantitative), Actuarial Modelling, Credibility (Risk) Theory, Decision Theory

## INTERNSHIP EXPERIENCE

**Polyexplore**  Remote, United States | 06/2023 - Now
**ML/Software Engineer - HD Mapping.**
- Leveraging expertise in Python, OpenCV, CVAT, and CloudCompare, designed and implemented image processing pipelines, transitioning from manual annotation to automated extraction of road markings in geospatial imagery, transforming and visualizing geographic data for further analysis.

**Accenture**  Shanghai, China | 06/2021 - 10/2021
**Analyst of CPIC (China Pacific Insurance Co.) Project in Fintech Consulting Dept.**
- Identified process inefficiencies by mapping out current business and system status at CPIC using Visio flow chart.
- Created plans to improve efficiency with completed Business/Functional Requirement Documents (BRD/FRD) by integrating similar business branches, removing redundant business nodes, and adding missing functions.
- Designed prototype of the new system, including query and task assignment systems, using the prototyping tool Axure.

**ByteDance**  Remote, China | 02/2021 - 05/2021
**Product Operation Manager in DCar APP (Dongchedi.com)**
- Quantified customer acquisition cost, retention rate and consumer satisfaction by using Python and Excel (Pivot Table) .
- Wrote BRD/FRD for app simplification, fuzzy search design, and AI recommendation model.
- Created prototype design of the app's homepage and shopping page in a new version using Axure.

**Akmii Information Limited**  Shanghai, China | 12/2019-02/2020
**Product Test Engineer and Project Manager**
- Combined business decision trees to assist investment and commercial loans product development and testing of the management platform at Asian Infrastructure Investment Bank.
- Designed and tested a new enterprise daily operation management software for Swire Group and collected feedback.

## CORE ACADEMIC PROJECT

**Analysis of Car Pricing –** Wrote EDA report, created a MLR and Decision-Tree model to analyze better the factors that affect the market price of second-hand cars in US market by using R/Python, designed a pricing forecasting system.

**Image Identification and Classification –** Applied the Hard/Soft Support Vector Machine (SVM) algorithm to automatically recognize and classify thousands of pictures of animals by employing Python/MATLAB.

**Modeling Earthquake Damage -** Utilized XGBoost/LightGBM, applying data cleaning, hyperparameter tuning, and crucial feature identification to predict earthquake damage. Rank top 2% in the DRIVENDATA competition.

**Research of the Titanic Survivor –** After data cleaning and feature engineering, applied KNN/SVC/RF/GB/MLP/Logistic regression methods to modelling and analysing Titanic survived passenger in different age/class/gender.

**US Stock Analysis –** Examined and visualised the price increase, net returns, risk, and correlations of U.S. stocks over a specific period by utilizing Python to plan portfolios.

## SKILLS

**Language:** English, Mandarin (Native)

**Programming Languages:** Python, R, Swift

**Database Technologies:** MySQL, Snowflake, AWS, Google Cloud, Visio

**Tools:** Axure, CVAT, CloudCompare, OpenCV, Draw.io, Maple, Excel, SPSS, Tableau, LaTeX, MATLAB, Visual Studio Code, Xcode, Copilot X, CodeWhisperer