# Yan (Yves) Yang

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#### **EDUCATION**

**University of Chicago** 

Chicago, IL

Master of Science in Computer Science, GPA: 3.90/4.00

December 2023

Relevant Coursework: Programming(Python, Haskell), Algorithms, Computer Systems, Big Data(AWS, Hadoop, SQL, NoSQL, Data Scraping and Cleaning), AI (Deep Learning, LLM), Mobile/Web Development(Swift, Kotlin, JavaScript)

Wake Forest University

Winston-Salem, NC

Master of Science in Accounting Analytics (Transaction Service Concentration), GPA: 3.88/4.00

December 2020

Relevant Coursework: Financial Accounting, Financial Management, Data Analytics and Visualization(Alteryx, Tableau)

Honors: Graduated with Distinction, Beta Gamma Sigma Honor Society

**Central University of Finance and Economics** 

Beijing, China

Bachelor of Management (Accounting Concentration), GPA: 87.59/100 Honors: Graduated with Distinction, Dean's List (8 out of 8 Semesters)

May 2019

#### PROFESSIONAL EXPERIENCE

#### **Fenghe Smart Robotics**

Product Development Intern

Xi'an, China & Chicago, IL

March 2022 - August 2023

- Conceptualized and executed the roadmap and end-to-end development for an fruit harvesting software and end-user application, addressing the market gap in automated fruit picking, and providing a resource-efficient and environmentally-conscious solution.
- Orchestrated daily collaborations across business teams and technical teams of 8 engineers and UI designers, ensuring the seamless integration between business operations and product development throughout the entire lifecycle.
- Facilitated iterative testing and refinement of the image recognition algorithm and end-user application, enabling precise fruit identification and efficient harvesting with minimal damage, resulting in a 50% processing time reduction per target.
- Pitched and released the product in 2 fruit cultivation zones, monitoring performance metrics and gathering user feedback for ongoing product enhancements and scaling, elevating customer experiences, and ultimately securing a \$700K new investment.

#### **Deloitte & Touche LLP**

New York, NY

Senior Assistant, Banking & Capital Markets

January 2021 - January 2022

- Digitized operational and financial data evaluation through Omnia AI platform. Analyzed accounts, identified patterns, streamlined procedures on 3 complex balances and inter-company transactions, and reduced task duration by 50% through data automation.
- Focused on capital market clients with over 10 global entities and \$70B total assets. Utilized extensive experience in data analysis, financial reporting and SEC filings to deliver over 20 high-quality financial reports and 2 due diligence reports.
- Coordinated project collaborations across 5 countries and 4 distinct service teams. Served as the main liaison with client's C-suite and multiple departments. Proactively addressed inquiries, resolved issues, and ensured delivery of accurate and impactful insights.

#### **National Bureau of Statistics**

Xi'an, China

Data Analytics Intern, The Fourth National Economic Census Team

February 2019 - March 2019

- Processed, analyzed and visualized over 800 firms' raw operational data using Python and Tableau, unveiling business trends and growth prospects through strategic analysis, offering an overview of SMEs' performance for well-informed policy formulation.
- Achieved a 70% acceptance from surveyed business owners for a report on optimizing data usage to boost business performance.

### ICBC Credit Suisse Asset Management Co., Ltd.

Beijing, China

Portfolio Management Intern, Asset Management

August 2018 - October 2018

- Processed data on capital prices and debt market, generating 11 weekly reports and 3 monthly reports, thereby providing portfolio transparency and accountability to stakeholders and facilitating strategic planning and portfolio selection process by senior leaders.
- Performed financial due diligence and analysis on two companies within the TMT and Biotech sectors, resulting in evidence-based reports and recommendations that directly influenced investment decisions, and ultimately driving the portfolio growth.

### SearchSino Market Research

Xi'an, China

Part-Time Analyst, Operation & Research

July 2015 - August 2018

- Developed and deployed data collections and statistical analysis, encompassing product usage records, over 1K consumer surveys, qualitative data from 20 focus group sessions, covering consumer goods, technology, automotive, and energy industries.
- Conducted qualitative and quantitative research on customer feedback, business metrics, and market data to identify trends and produce actionable insights. Notably, a new business proposal led to client's record-breaking earnings in the subsequent year.

#### PROJECTS (Complete Portfolio)

# Efficiently.ai — A Generative AI Toolkit to Process Unstructured Data

September 2023 - December 2023

- Deployed a generative AI application with capabilities to process multimodal inputs including unstructured text inputs, audio and video files, web links, and datasets, complemented by advanced features for data analysis and visualization.
- Integrated a combination of AI techniques, including configuring chains, prompt engineering, implementing retrieval augmented generation, responsible AI moderation, and leveraging python, langehain, OpenAI API, unstructured.io, and streamlit framework.

# ZipEstate — A Big Data Architecture and Application on US Real Estate Market

September 2023 - December 2023

- Constructed a big data application to offer insights into US real estate market, utilizing over 7.4M historical records of quarterly market transactions and geospatial data spanning the past decade, also incorporating real-time data updates for scalable analysis.
- Implemented a lambda architecture at AWS cloud environment using Hive for data warehousing, Spark for data processing, Kafka for data streaming, and Express.js for web application, enabling efficient data query and retrieval, dynamic updates.

#### Business Viz — A Finance Performance Metrics Dashboard Web Application July 2023 - August 2023

- Orchestrated development of a comprehensive business metrics dashboard following agile methodology, continuously integrating and deploying machine learning projections and offering real-time analytical insights through intuitive UI and data visualization.
- Leveraged Redux Toolkit for seamless state management, Material UI component library for a modern and user-friendly interface, and Recharts for dynamic and interactive charts visualization.
- Engineered a robust API backend using Express is, coupled with efficient data storage and retrieval through MongoDB, resulting in a flexible and responsive platform for performance monitoring and business decision-making.

## Financial Analysis and Algorithmic Trading using Python and QuantConnect

June 2023 - August 2023

- Analyzed 20 automotive companies' 5-year financial performance and correlation using yfinance, numpy, pandas, and matplotlib.
- Optimized an algorithmic trading strategy tailored to the automotive market, with weighted consideration of financial indicators, sentimental analysis using Tiingo API and Vader analyzer, machine learning predictions using RandomForestRegressor.
- Achieved a 128.80% return during a 5-year backtesting and generated a 18.74% return during a 3-month live trading deployment, affirming its real-world applicability and performance.

## Oscar Pictures — A Movie Database and Tracker iOS Application

March 2023 - June 2023

- Researched user demands, identified user pain points and designed prototypes in Figma.
- Developed the application in Swift, integrated data persistence with CoreData, enabled interactive information with WebKit, and enhanced user experience with immersive backgrounds, randomized recommendations, statistics and status tracker features.
- Maintained ongoing support for the application, addressed issues, and implemented new features based on user feedback to ensure application responsiveness, error prevention, and compatibility across different devices.

# Apple Maps Product Redesign

March 2023 - June 2023

- Identified user pain points and prioritized features and capabilities through direct inputs from users and developers.
- Improved user experience and efficiency by a more intuitive interface, resulting in a significant reduction in search-related task time and enhanced multitasking capabilities.
- Redesigned color palette, element position and menu logic and innovated offline maps and screen-on-screen feature to provide better accessibility, enhance user efficiency and expand usage scenarios.
- Conducted continuous prototyping and testing in Balsamiq, improved design, and implemented features based on user feedback.

# Building Modern Computer — A Hardware and Software Practicum

January 2023 - March 2023

- Designed and implemented a computing system from low-level logic gates to a complete computer architecture.
- Built assembler, VM translator and compiler using Python to enable the conversion between assembly code, intermediate VM code, and higher-level language (Jack).
- Developed an interactive graphical keyboard-controlled game featuring randomly generated moving characters using objectoriented programming techniques and it successfully compiled and executed on the constructed computer.

## **SKILLS & INTERESTS**

- Programming with Python, Java, Haskell, Scala
- Mobile Development with Swift (iOS), Kotlin (Android)
- Web Development with HTML, CSS, JavaScript, React
- UI/UX and Product Design with Figma, Balsamiq
- Data Analytics with Tableau, Alteryx, SQL, Hive, Spark, Kafka
- Financial Analysis with Capital IQ, Bloomberg, QuantConnect
- Work Demonstration with Microsoft Office, Keynote
- Video Editing with Final Cut Pro
- Business Acumen in Strategic Analysis and Market Research• Expertise in Project Management and Financial Management
- Interests: Language Learning, Card Magic, Video Editing, UI Design, Solving Hanayama Cast Puzzles, Poker

### **COMMUNITY AND LEADERSHIP**

#### **Second Harvest Food Bank**

Winston-Salem, NC

November 2019 - December 2020

Actively volunteered in warehouse operations such as food sorting and pallet building.

### **Agricultural E-commerce Project**

Hangzhou, China

Team member

Volunteer

July 2016 - August 2016

- Designed and implemented an agricultural product selling and distributing platform to empower local farmers' direct sales.
- Implemented a QR code system for improved product traceability and quality control.
- Provided strategic and technical support in establishing partnerships among suppliers, logistics providers, distributors, and regulators to ensure seamless transactions and operations throughout the business cycle.

#### **International Business Association**

Beijing, China September 2015 - June 2017

Established the association and successfully secured a \$20K sponsorship from New Oriental Education Group.

Achieved significant membership growth of over 500% and received the "2016 Best Student Organizations" award.

# **Arts Union & Host Group**

Beijing, China

Orchestrated 6 large-scale events, involving over 100 staff and 800 attendees per event.

Facilitated collaborations and partnerships across educational institutions, initiated cooperative training programs.

September 2015 - June 2017

Vice President

Co-founder