

# HANK YEN

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## CAREER OBJECTIVE

A highly motivated and technically proficient computer scientist with a **Master's degree in Computer Science**, I am seeking a challenging role as a **Data Scientist** and **Machine Learning Engineer**. With responsible **Leadership** experiences and a strong foundation in a wide range of programming languages and tools, including **Python**, **TensorFlow**, **PyTorch**, **Transformers**, and **Tableau**, I am eager to leverage my skills to make a positive impact on innovative technology. I am open to relocation and available to commence work with a two-week notice period.

## EDUCATION BACKGROUND

**California State University, Long Beach**

Master of Science in Computer Science

**Long Beach, CA**

08/2021 – 06/2023

**National Taipei University of Education**

Bachelor of Science in Computer Science

**Taipei, Taiwan**

09/2016 – 06/2020

## WORK EXPERIENCE

**Medical Home Center**

*Chief AI Officer & Data Scientist – Full Time*

**Westminster, CA**

07/2023 – Present

- Established and led an AI product team (ML, design, contractors) and built capabilities in AI model performance optimization, NLP, ML, and model compression. Defined a data science function that involved AI research, data science libraries and solutions, and algorithmic engineering for product engineering.
- Leading artificial intelligence efforts across company, including platform, frontier applied research, model development, go-to-market, revenue, adoption, partnerships, ecosystem, and secure, responsible AI, while collaborating closely with the executive team.
- Developed a data-driven solution for employee attrition, achieving 96.2% accuracy in predicting employee turnover and implementing initiatives that led to an 80% reduction in attrition.
- Led the development of the RAG ChatBot application, resulting in 2,000 new customer conversations, a 50% reduction in staff time for routine queries, and a 95% increase in response accuracy, delivering a highly responsive and customizable user experience.
- Utilized RPA technologies to automate internal processes, increasing 20% overall work performance through writing custom scripts and code to streamline workflows and reduce manual intervention.
- Developed machine learning models for company to predict and prevent customer churn, providing actionable insights and strategies to retain and foster loyalty among at-risk users.

**ShangMing Automobile Co., Ltd.**

*Co-Founder*

**Remote**

07/2020 – Present

- Spearheaded and executed high-impact international trade initiatives, resulting in significant global business expansion for ShangMing Automobile Co., Ltd.
- Proficiently explored and penetrated diverse global markets, tactically planning and implementing business initiatives that ensured sustainable growth and market diversification.
- Strategically leveraging advanced data science methodologies, a diverse array of data-driven solutions is crafted and implemented, ensuring robust company growth and optimizing operational efficiency, which results in substantial cost reductions.
- Provided visionary leadership as a co-founder, actively contributing to the establishment and growth of company, shaping the company's overall direction and success in the automotive industry.

**Remotasks - Scale AI**

*Data Scientist – Contract*

**Remote, CA**

01/2024 – Present

- Collaborated with organizations in training large language models, specializing in fine-tuning code instructions of the models to enhance their performance. Executed projects to optimize code efficiency, addressing complex data problems and writing robust test cases for AI-generated code functionality.
- Crafted human-readable summaries of problems addressed during model training and provided written explanations of how data science can solve problems, evaluating various solution approaches. Active engagement with AI models to contribute to cutting-edge advancements in generative AI for coding applications.

**CTBC Bank Co., Ltd.**

*Software Developer - Intern*

**Taipei, Taiwan**

02/2020 – 06/2020

- Worked on Robotic Process Automation (RPA) projects, orchestrating end-to-end development, deployment, and management of software robots, resulting in heightened productivity, substantial cost savings, and enhanced business processes.

## TECHNICAL SKILLS

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**Languages:** Python(7y+), Java(7y+), C++(6y+), HTML, CSS, JavaScript, SQL, C#, VBA.

**Tools:** TensorFlow, Keras, PyTorch, Transformers, Spark NLP, RNN, LSTM, CNN, BERT, GPT, LangChain, Hugging Face, Flask, Django, Docker, REST API, AWS, Linux, C#.NET, Scikit-Learn, NumPy, Pandas, Tableau, Seaborn, OpenCV, OpenPose, Bootstrap, jQuery, React.js, Matplotlib, Git, JUnit.

**Certificate:** Deep Learning Specialization Certificate, Google Data Analytics Professional Certificate, VjAI AI Trainer Certificate, Google Analytics Certificate.

## PROJECTS

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### Company's Employee Attrition Prediction and Solution

2024

- **Achievement:** Achieved a 96.2% accuracy in predicting employee turnover through data modeling, enabling proactive identification. Recommended initiatives such as reevaluating workload expectations, and fostering transparent communication about company policies, resulting in a 80% reduction in turnover.
- **Methodology:** **NumPy, Pandas, Seaborn, Tableau, Scikit-Learn.**
- **Description:** Launched a data-driven project to reduce employee turnover, addressing critical company performance and morale issues. Leveraged machine learning on historical employee data to develop predictive models, identifying turnover patterns. Concluded with actionable insights, recommending strategies like capping project numbers and promoting long-term employees for proactive talent retention and a positive work environment.

### Company's Website with AI ChatBot Integrated

2023

- **Achievement:** Accomplished a 40% increase in website traffic by implementing front-end enhancements and SEO. Elevated user engagement and satisfaction by integrating an AI Chatbot, leading to a 50% reduction in staff time spent on routine queries.
- **Methodology:** **HTML, CSS, JavaScript, RESTful API, SEO, Google Analytics, Data Analytics.**
- **Description:** Revamped and optimized the company's website, addressing limited visibility and engagement through strategic front-end and back-end development. Increased organic traffic by implementing SEO best practices and analyzing user behavior with Google Analytics. Led the integration of an AI Chatbot, ensuring 24/7 availability, thereby enhancing user satisfaction and streamlining routine queries. Demonstrated strong technical expertise and workplace skills in problem-solving, leadership, and effective cross-functional communication, showcasing adaptability and commitment to measurable results.

### LangChain ChatBot Application

2023

- **Achievement:** Earned customer engagement over 2,000 new conversations through developing a sophisticated chatbot, and enhanced response accuracy by 95% by strategic prompting, resulting in a highly responsive and customizable user experience.
- **Methodology:** **Python, OpenAI's models, LangChain, Flask, RESTful API, AWS, Linux.**
- **Description:** Spearheaded the creation of a state-of-the-art chatbot application, capitalizing on OpenAI's cutting-edge language models and LangChain's versatile capabilities. Custom datasets were curated to provide users with personalized interactions. The chatbot was seamlessly integrated into our platform through Flask, offering a user-friendly and dynamic experience.

### LSTM Audio Emotion Classification

2023

- **Achievement:** Achieved 86% accuracy in audio emotion classification, enhancing emotion analysis capabilities. Developed an LSTM-driven solution that effectively analyzes audio data for emotional content.
- **Methodology:** **Python, TensorFlow, Keras, LSTM, CNN, Seaborn, Matplotlib.**
- **Description:** Developed an advanced LSTM-driven audio emotion classification solution. Visualizations of audio waveforms and spectrograms were generated using Seaborn and Matplotlib, while label encoding ensured data readiness. The architecture, based on TensorFlow, Keras, LSTM, and CNN layers, was meticulously designed for robust analysis. The model was trained using customized MFCCs (Mel-frequency cepstral coefficients) features, resulting in 86% accuracy in audio emotion classification. The trained model was seamlessly integrated into real-world audio data for further applications, enriching emotion analysis capabilities.