

## CHIA-EN (JACKLYN) TSAI

Software Engineer / Data Analyst | linkedin: [@jacklyn-tsai](#) | github: [@jacklynchiaentsai](#)

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## EDUCATION:

**Columbia University, The Fu Foundation School of Engineering and Applied Science**

**New York, NY**

*Bachelor of Science in Computer Science, Minor in Economics / Entrepreneurship , GPA: 3.98 , Expected May 2025*

- Relevant Coursework: Computer Networks, Advanced Programming, Econometrics
- Davis Scholar, Columbia Undergraduate Scholars Program

## WORK EXPERIENCE:

**Columbia Build Lab - OROxyz**

**New York, NY**

*Software Engineer*

September 2022 - May 2023

- Designed & Developed IOS app back-end Flask API, deploying on AWS EC2 Server
- Constructed & Maintained robust MySQL user database system
- Implemented Twilio, Google O Auth, Google Geocode APIs for secure identity verification
- Facilitated weekly meetings on product design and front-end synchronization

**Columbia Business School**

**New York, NY**

*Machine Learning Research Assistant*

September 2022 - Present

- Leveraged python Pandas library to filter desirable demographic identity groups for study
- Assisted in DQN Reinforcement Model training, testing, pipelining using PyTorch
- Conducted hyperparameter tuning and visualization with WandB for model optimization

**Kang Da Information Inc.**

**Taipei, Taiwan**

*Full-Stack Software Engineer Intern*

June 2022 - July 2022

- Worked alongside engineering team in developing Governmental system software across multiple agencies
- Developed user interface for Inter-agency Communication System using Javascript, HTML / CSS
- Constructed back-end logic for user query features with Java, automating query speed by 15%

**CyCraft Technology Corporation**

**New Taipei City, Taiwan**

*Data Analyst Intern*

September 2019 - May 2021

- Leveraged webscraping (BeautifulSoup), Natural Language Processing modules in Python to extract Cyber Threat Intelligence from internet security platforms
- Implemented scikit-learn classification data pipeline to streamline cyber threat classification, analysis, prediction
- Developed AI Threat Intelligence Analysis System, boosting automatic threat hunting with 90%+ accuracy
- Deployed ML-driven system on Flask web framework for client accessibility

## PROJECTS:

**CTI ANT: Hunting for Chinese Threat Intelligence** : First ML-driven Chinese Cyber Threat Intelligence Analysis System

*#BeautifulSoup #NLP #Scikit-learn(CountVectorizer, TF-IDF, SGD, NaiveBayes, DecisionTree) #Flask #Matplotlib*

- Boosts automatic cyber threat classification, analysis, and prediction with 90%+ accuracy.
- Presented in 2020 IEEE International Conference on Big Data and PyCon Taiwan 2020.

**Discreet Beats (Presentation)**

*#Pandas #Scikit-learn #Spotipy # Matplotlib*

Privacy-First, personalized music recommendation system that recommends top 30 songs for user based on user's Spotify playlist, without relying on invasive personal data.

## SKILLS:

- Programming Languages: Python, Java, C++, HTML 5, CSS 3, JavaScript, C, SQL, STATA
- Technical: Flask, Pandas, Scikit-Learn, Matplotlib, React JS, NodeJS, Tailwind CSS, MySQL, MSSQL, AWS, Git, Figma
- Front-End, Back-End, Data Analysis, Project Management, Marketing & Outreach