

Taylor Amarel

Connecticut, USA (May Consider Relocation)

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Developer and technologist with 10+ years of experience filling multiple technical roles in small and medium enterprises. Focused on developing innovative solutions through data analysis, business intelligence, OSI, data sourcing, and ML. Currently pursuing a Masters in Data Analytics and looking for a remote role involving data analysis and innovation.

EXPERIENCE

Retail Business Services, Connecticut - Analyst 2023 - Present

Improving processes and leveraging advanced analytics to improve efficiencies and outcomes within the Store Development Leasing and Facilities department. Core projects include the design of a centralized data-lake friendly info repository for business teams and decision support systems to support asset, software, and sustainability systems.

Migrasia, Hong Kong — Technology Solutions 2018 - 2022

Led the development of technology solutions to increase transparency, ethics, and support services within the migrant worker industry. By using big data, social media, and innovative technology solutions, we were able to identify and assist thousands of victims of irregular migration. Key achievements include increasing social media engagement by over 10,000%, automating 40+ hours of work/week, expanding the core team from 2 to 10 people, and supervising 80+ HKU students and volunteers. The development stack included Python, Django, PowerBI, Open Semantic Search, AWS, GCP, and more.

Amarel Solutions, Global — Freelance Tech Work 2011 - 2018

Worked as a freelance programmer for for-profit companies and social ventures. Focused on building effective websites and technology solutions that obtained a quick return on investment and increased business opportunities. I also served as the Entrepreneur/Tech-In-Residence at Chinaccelerator, assisting SOSVentures in investment strategy, startup growth, tactics, and various technology stacks.

Specifiko Education Consulting, Shanghai — CTO 2015 - 2016

Designed, developed, and launched specifiko.com, an online language learning platform for Chinese and Japanese doctors wishing to improve their English medical skills.

Modelyst, San Francisco — Founder 2012 - 2014

Co-founded a 3D Printing startup that functioned as the “99 Designs” for 3D Printing. This startup obtained VC Capital and was subsequently merged with 3DPrintingModel.com and continued to operate as a 3D hub for over 30,000 users.

Abraxas Energy, CA — Head of Technical Services 2012-2013

Managed all internal and external technical products - ranging from front-facing websites and local IT infrastructure to cloud-based data gathering and analysis tools.

EDUCATION

WGU — Master of Science in Data Analytics Graduated in 2023

Core curriculum included: Machine learning in Python, statistical analysis, natural language process, neural networks, data visualization tools and real world applications.

WGU — Bachelor of Science in IT Management Graduated in 2022

Curriculum touched on all aspects of modern IT systems from software development, network systems, information systems, and the associated management skills.

PREVIOUS PROJECTS

AI Social Media Analysis — ML for TIPs Detection 2018 - 2022

Used deep learning to analyze social media posts and relevant metadata to detect instances of trafficking in persons and money laundering.

AI Document Analysis — Investment Fraud Detection 2014 - 2018

Built a smart document analysis system that could filter, rank, and classify documents based on a machine learning implementation and web scraping.

20 Under 20 (Thiel Fellowship) Finalist — IP Marketplace 2012 - 2013

Designed and built an innovative IP marketplace allowing large companies, SMEs, individuals, and everyday innovators to buy and sell IP licenses easily.

3D Ultrasound (Hartford Hospital) — \$200 3D Ultrasound Machine 2010 - 2011

Developed a 3D ultrasound machine for <\$200 using machine vision and LabView.

SKILLS

Process: Data Analytics, Intelligence Gathering, Automation, Internet Marketing, Anomaly Detection, Innovation, Visualization

Technical: Python, SQL, DAX, PHP, Django, ML, Cloud Infrastructure, OCR, SEO/SEM, Optimization, LabVIEW, PowerBI, DAX, GA

People: Communications, Leadership, SCRUM, Agile Team Operations, Story Telling, Constructive Feedback

Personal: Proactive, Innovative, Love to Learn

WORK EXAMPLES

Websites: <https://xinfab.com>
<https://chinaccelerator.com>
<http://allmywages.com>
<https://3dprinterstore.com>
<https://migrasia.org>
<https://hkuapparel.com>
<https://852designs.com>

Finance: [Case Studies](#)

Additional Typologies Available

Blog: [Circumplex Model](#), [BI Evaluation](#), [Don't Just Render Data](#)

Kaggle: [Taylor Amarel Profile](#)

CERTIFICATES & AWARDS

Current: [Google Data Analytics](#), [Power BI Specialist](#), [Data Dashboards in Power BI](#), [Python Skills for Data Science](#), [Looker Studio](#), [Master Microsoft Power BI](#), [Explainable Artificial Intelligence](#), [WGU Excellence Award](#), 20 Under 20 Finalist.

REFERENCES:

Available upon request.

PORTFOLIO

Machine Learning: Through Machine Learning, I have developed tools to: predict house prices, intelligently price Swingly offerings, predict AirBnB prices, classify email senders by writing style, find material misrepresentations, and analyze social media.

- [Machine Learning Algorithm to Predict Peaks and Valleys of Weekly SPY Options](#)
- [Reddit News Sentiment Analysis](#)
- [House Price Prediction](#)

Python Tools: Since 2017, I have built many Python tools to: archive websites, alert end users, crawl javascript heavy websites, analyze advertisements, scrape social media, collect open source intelligence, and much more. Select tools include:

- [Selenium Triple Archiver](#) (Also available as an API running via a dockerized AWS Lambda service.)
- [Selenium Tool to Classify Dog Breed](#) By Image via Microsoft Visual Search
- [Google Ads Results Scraper](#) (Built to archive Google Ads for a future machine learning project to identify suspicious ads and websites.)
- [Selenium Facebook Page Link Scraper](#) (Used to find Facebook page links by topic for competitor analysis, suspicious activity monitoring, sentiment analysis, industry growth, etc.)
 - Additional tools to automate social media actions and collect open-source intelligence for anomaly detection, competitor analysis, sentiment analysis, or machine learning.
- [Javascript Friendly Web Crawler](#) (Currently used to download PDF and images from Philippines government websites because the Philippines government posts many important documents in image or scanned-PDF format. These documents are not text searchable. However, downloading these documents via a javascript-friendly scraper makes it easy to search and analyze the text in these documents via [Open Semantic Search](#).)
- Kaggle Profiles: [Personal Profile](#) and [Migrant Worker Data Hub Profile](#)

Data Visualizations: Telling a story through visualizations and interactive programs can be more important than the data itself.

- [Know Your Agency Visualizer](#), as seen on [South China Morning Post](#).
- [Money Lender, Third Party Money Lender, Agency, MSO, and TCSP Network Map](#)
- [2021 POEA Case Data Visualization](#)

Presentations: I have conducted many presentations and webinars; linked below are two of my most recent.

- [Finance + Migration \(Migrasia x Mekong Club\) Presentation](#)
- [Annual Report Presentation](#)

Legal and Policy Contributions: While working at Migrasia, I built numerous tools to automate tasks, collect & analyze open source intelligence, and identify instances of activity that were suspected to contravene the laws of Hong Kong SAR. Certain elements of my work are [summarized in an overview presentation](#).

- Leveraged open-source intelligence and anomaly detection to identify a [ponzi-like agency scheme](#). After detection, I worked with [authorities to collect evidence, arrange witness interviews](#), and present the case for [prosecution](#).
- Organized one of the groups that [lobbied](#) the Hong Kong SAR government to increase the [statute of limitations and penalties for overcharging offenses](#) by employment agencies.

Academic Work: While studying BAITM at WGU, I completed several award-winning projects, including:

- [BS BAITM Final Capstone Project - The Stocking App Business Plan](#)
- [WGU Excellence Award](#)

ONGOING PROJECTS

In addition to continuously learning new Python and ML/AI skills, I am currently working on two hobby projects.

- [Migrant Worker Data Hub](#), a project to collect, archive, and share information relevant to labor migration. This project provides NGOs and policy-making authorities with non-traditional data to better protect migrant workers from overcharging, human trafficking, and other illicit activities. In addition to scraping and storing important data for historical analysis, the project aims to help NGOs and policy-making authorities better analyze unstructured data and leverage machine learning to detect abnormalities.
- Improved version of my previously created AI Document Analysis which can detect illicit activities through web crawling, scraping, document analysis, NLP, and interpretation of non-traditional indicators to predict illicit activities. This project aims to build a more robust and scalable engine that can collect data on a certain sector and self-train a model to detect abnormalities. This project will combine many of my previous projects and skills. Core systems of this tool will leverage Selenium, Python automation, Open Semantic Search, open source intelligence, industry experience, cloud services, and ML/AI.