TYLER CRANMER

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PROFILE

I am a software engineer who has a strong foundation in core computer science principles, data science, and machine learning. With hands-on experience in building full-stack web applications, developing machine learning models, and creating data visualizations, I am well-equipped to tackle a range of technical challenges.

SKILLS

Python, TypeScript, JavaScript, PostgreSQL, MySQL, MongoDB, GraphQL, Solidity, Next.js, React, Node.js, Django, Flask, FastAPI, PyTorch, TensorFlow, LangChain, Keras, AWS, GCP, Heroku, Vercel, Docker, Linux, Unix, Bash, Git, GitHub, Tailwind CSS, Mui

Certified AWS Solutions Architect Associate

GitHub | LinkedIn | Website

EDUCATION

Professional Master's - Computer Science, Intelligent Systems   Est. May 2025
University of Colorado – Boulder, Colorado

Bachelor of Science – Applied Computer Science   Aug 2018 - Dec 2022
University of Colorado - Boulder, Colorado
Cum Laude

Bachelor of Science – Exercise Science
Northern Arizona University – Flagstaff, Arizona

WORK EXPERIENCE

Software Engineer – MKT   July 2023 – Present

MKT (Market) is a web3 / blockchain company that develops dApps on the Canto blockchain ecosystem.

- Built a full-stack Web3 growth attribution and referral platform for the Canto ecosystem, enabling dApps to gain insights into on-chain actions related to their products. Technologies used: Python, TypeScript, FastAPI, Web3.py, Next.js, Docker, PostgreSQL.
- Revamped the frontend code for the Canto identity suite, leading to enhanced design and user experience. Developed using TypeScript, Ethers.js, and Next.js.
- Enhanced and updated the frontend code for the Canto namespace product, improving design, functionality, and user experience. Implemented with TypeScript, Ethers.js, and Next.js.
- Constructed a NFT indexing platform to capture details about NFTs, their transfers, token types, and follower relationship structures, thereby enhancing the user experience for the Canto identity suite. Built with Python, Web3.py, and PostgreSQL.
- Coauthored comprehensive documentation for the Canto identity and Canto namespace.
- Developed the Canto concierge marketing website to bolster the promotion of the Canto ecosystem. Created using TypeScript, Next.js, and Sanity.io.
- Created a multi-chain asset bridge, enabling users to transfer crypto assets to and from the Canto ecosystem. Utilized TypeScript, Next.js, and the Synapse Protocol.

Machine Learning Engineer / Software Engineer – More Seconds   Dec 2022 – August 2023

More Seconds is a web development and digital agency that builds custom solutions for businesses. Currently working on SaaS developer and project manager platform.

- Collected and cleaned developer operation data to create a machine learning regression model that estimated time to completion for specific development tasks to be displayed on the More Second's client project management portal. This was built using Python, XGBoost, CloudFormation, ECS, Docker, S3, SAM CLI and AWS Lambda.
- Developed three different NLP classification models using NLTK, Naïve Bayes and TD-IF to predict the type of web developer tasks, clarification features and its overall complexity for More Seconds project manager portal. Built with Python, Scikit-learn, CloudFormation, ECS, Docker, S3, SAM CLI and AWS Lambda.
- Developed a customized language model using GPT-4 to extract structured information from unstructured client web development requests, enabling automation of developer task creation.
- Developing an AI application using LangChain and GPT-4 that will be used in place of technical project managers to decipher our client's technical requirements and generate clear objective tasks for our web dev team. Built with Python, LangChain and FastAPI.
- Developed, maintained, and updated Dashboard UI to efficiently manage project and client data, leveraging Typescript and React.
- Updated MongoDB schema to seamlessly integrate and support new features, enhancing the functionality and scalability of the platform.

Software Engineer - Index Coop   May 2021 – June 2022

The Index Coop is a web3 / blockchain company that creates and maintains the words leading crypto index products.

- Active member of the engineering, analytics, and finance pods.
- Built an application hosted on an AWS EC2 Linux instance that automated the collection, recording and calculations of monthly community contributions for the finance pod using Python, SQL, and Google Sheets. Utilized Bash scripts to deploy webserver to AWS.
- Was part of a two-man engineering group that was tasked to build an analytic tool called a subgraph, which collected and recorded all on chain data that pertained to the company's index products. This tool was built using GraphQL and TypeScript.
- Created technical documentation on Solidity, Web3.js and Hardhat.
- Contributed to the creation of the engineering on-boarding process for new developers.

FEATURED ENGINEERING PROJECTS

Links to each project's codebase is located at www.teewhy.xyz

Osce Medical Training Platform
Developed an innovative web-based simulator, "AI Virtual Doctor's Office," specifically tailored for Physician Assistant students. This platform leverages artificial intelligence to simulate real-life clinical scenarios, allowing students to engage in structured clinical examinations across various medical specialties. Through interactive, voice-guided sessions with an AI patient, users can refine their diagnostic skills and clinical approach, enhancing their practical training and preparedness for real-world medical environments.

Technologies: Python, Typescript, FastAPI, Next.js, PostgreSQL, LangChain, GPT-4

Machine Learning Recommendation System
Engineered an advanced content-based movie recommendation system by leveraging diverse machine learning and natural language processing techniques. This system analyzes a vast dataset comprising over 8,000 Netflix movies and TV shows, creating a detailed feature matrix. I computed various similarity metrics to refine recommendation accuracy. Additionally, I developed and integrated two proprietary machine learning models, conducting comparative analysis with existing algorithms to enhance recommendation precision and user experience.

Technologies: Python, NumPy, Matplotlib, Pandas, Scikit-learn, NLTK

[CNN Image Classifier](#)
Developed a Convolutional Neural Network (CNN) to categorize various NFT images into their respective collections. The project harnessed 6,000 images from six distinct NFT series for training and evaluating multiple deep learning models. My efforts culminated in a model boasting an impressive 99% accuracy rate, significantly advancing the precision of NFT classification.

Technologies: Python, TensorFlow, Keras, Matplotlib, NumPy

[Medical Treatment Costs](#)
In this project, I engaged in an in-depth analysis of medical treatment costs, utilizing a dataset that included variables such as age, sex, BMI, number of children, smoking status, and geographical region. Through exploratory data analysis, I identified key factors that drive higher healthcare expenses. I developed a regression model to accurately predict individual patient costs based on these determinants, thereby enhancing my expertise in data analysis, feature extraction, and regression modeling.

Technologies: Python, Pandas, NumPy, Scikit-learn, Seaborn