Dmitriy Vasilyuk

FULL-STACK BLOCKCHAIN DEVELOPER

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PROFESSIONAL SUMMARY

Transitioned from theoretical particle physics to a seasoned professional poker player, owing success to self-built suite of tools for strategy analysis. Engagement with DeFi and algorithmic trading led to positions as a full-stack blockchain developer. Recently built and sold an AI app for chatting with private data, further enhancing strong technical acumen across diverse domains.

SKILLS

Tech: Python, TS, C++, Solidity, React, Docker, Hardhat, Foundry, Langchain, Google Cloud, building APIs, DS stack (pandas etc.)

Fundamentals: theoretical physics, graduate level math, algorithms & data structures, stats, ML, game theory, cryptocurrency

Miscellaneous: poker, analytic philosophy, scientific skepticism, teaching, 5 languages, writing & editing, accessibility issues/tools

WORK EXPERIENCE

Blockchain Developer at Peaze – *Redwood City, CA*   *Aug 2023 – present*

- Build smart contracts to enable gasless cross-chain transactions
- Build API to relay such transactions, write documentation

Blockchain Developer at Standard Creative – *Redwood City, CA*   *Dec 2022 – Jul 2023*

- Built smart contracts with extensive test suite, performed audits & gas optimizations, created documentation
- Built parts of frontend, integrated frontend with smart contracts and IPFS, created automated e2e frontend tests

DeFi and Algo Trader – *Emeryville, CA*   *Aug 2021 – Dec 2022*

- Built perpetual futures **trading bot** on Solana blockchain; traded manually and algorithmically across DeFi protocols
- Built Telegram bot with backend leveraging Python data science stack for time-series analysis, portfolio optimization

Professional Poker Player – *Emeryville, CA*   *May 2007 – Oct 2021*

- **Beat mid & high stakes** limit hold'em games with winrate 1.9BB/100 over last 1M hands on PokerStars and other sites
- Succeeded by building applications (Python/C++ - see below) to help play, analyze strategies, alert to weaknesses

Co-founder of small software company Q-Wager – *El Cerrito, CA*   *Jun 2006 – Aug 2009*

- Built C++ app to beat online casinos by optimally auto-playing blackjack and collecting bonuses, **300+ paying customers**

PROJECTS

DocDocGo *{Python: Langchain}* – *AI assistant for <u>Carbon, Inc.</u> to chat with company's private Confluence documentation*

- UI via Google Chat App, backend uses vector db of pre-ingested docs to allow LLM to answer questions about them

PROJECTS continued

Crypto Trader *{Python} – trading bots for EVM-compatible blockchains and Solana*

- Solana bot (a) runs **market-making strategy** for perp futures; (b) places **+EV taker orders** based on orderbook and oracle
- EVM bot queries liquidity pool smart contracts and executes **on-chain swaps** based on predefined triggers, sends alerts

Crypto Analyzer *{Python: 4500 lines} –* <u>Telegram bot</u> *with a suite of tools for analyzing and monitoring crypto price data*

- Fetches live & historical prices, calculates autocorrelation, volatility, trends, impermanent loss, makes graphical reports
- Each user can set one's own parameters and create alerts to monitor crypto positions; public vs advanced features

Poker Analyzer *{Python: 6800 lines} – game analysis suite: advanced filters & stats, detects players' weaknesses during game*

- **During play** parses game history, adds to **custom-made database**, updates all stats, **reports deviations** from reference
- Rich **query language** to filter player game data and **89GB** of Nash equilibrium strategy, generates reports & quizzes
- Monte-Carlo sims of equilibrium & non-equilibrium play to calculate EVs and find exploitative strategy adjustments

VocabMeThis *{Python: Flask} – mobile-friendly* <u>web app</u> *to test user's vocabulary and teach new words at auto-adjusting level*

- 125000 words & definitions, with algorithm to **rank by difficulty** by constructing frequency dictionary from NLTK corpora
- Data cleaning algorithms to identity different forms of the same word, replace one-word definitions with proper ones

Game Manager *{C++} – application to monitor & manage poker tables and play without needing mouse or keyboard*

- Analyzes mic sound, **classifies** it (*S* vs *SH* vs *AH* etc.), translates into required action on poker table, adapts to noise
- Monitors poker tables for special events (opponent came, good seat freed up, etc.), alerts and performs needed action

ReasonMeThis *{HTML, CSS, JavaScript} – philosophy, physics, and critical thinking blog at* <u>www.reasonmethis.com</u>

- Over 30 articles on philosophy of language, anthropic reasoning, multiverse, entropy, consciousness, and other topics
- Custom HTML and CSS, responsive **JavaScript animations** of physics and math concepts

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EDUCATION

Master of Arts in Physics *– UC Berkeley* *2006*

- Conducted research in string theory as part of Ph.D. program, switched careers before finishing Ph.D.
- Completed coursework in quantum field theory, general relativity, string theory, differentiable manifolds, Lie groups
- Received **Outstanding Graduate Student Instructor** award for excellence in teaching

Bachelor of Arts in Physics *– UC Berkeley* *1999*

- Earned **2nd place** in <u>BAUPC '99</u>, Harvard-run physics competition