Dmitriy Vasilyuk

FULL-STACK BLOCKCHAIN AND AI DEVELOPER

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PROFESSIONAL SUMMARY

Transitioned from theoretical particle physics to a 15-year career as a professional poker player, owing high long-term winrate 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 created and sold an AI assistant app for chatting with a company's private data.

SKILLS

Tech: Python, Typescript, C++, Solidity, React, Hardhat, Foundry, RESTful APIs, GCP, PyTorch, Langchain, vector DBs, LLM agents

Fundamentals: theoretical physics, higher mathematics, game theory, statistics, machine learning, algorithms & data structures

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

WORK EXPERIENCE

AI App Developer – *Redwood City, CA*   *Sep 2023 – Present*

- Created AI assistant apps (1) **DocDocGo Carbon**, licensed to Carbon, Inc., (2) **DocDocGo Core**, open-source app (demo)
- DDG Carbon: ChatGPT-like chat with company's Confluence docs via Google Chat connected to Flask API & vector DB
- DDG Core: **"infinite" research** loop - get sites (100s) on user's topic, iteratively refine report, form DB for follow-up chat

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

- Developed smart contracts to enable gasless cross-chain transactions (with EIP-712 & EIP-2612 to sign/encode meta-txs)
- Redesigned and wrote portions of Next.js API for relaying such transactions; crafted user-facing documentation

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

- Wrote smart contracts along with extensive test suite, performed audits & gas optimizations, created documentation
- Implemented parts of frontend, integrated frontend with 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 startup Q-Wager – *El Cerrito, CA*   *Jun 2006 – Aug 2009*

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

PROJECTS

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} – Telegram bot offering 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} – 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} – mobile-first* [web app](#) *to test user's vocabulary and teach new words at auto-adjusting difficulty level*

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

Game Manager *{C++} – application to play professional online poker with no mouse or keyboard on multiple tables*

- 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 and physics blog at* www.reasonmethis.com

- **Over 30 articles** on philosophy of language, anthropic reasoning, multiverse, entropy, consciousness, and other topics
- Interactive JavaScript animations of physics and math concepts - e.g. desynchronizing double pendula to illustrate chaos

EDUCATION

Master of Arts in Physics *– UC Berkeley*

- Received **Outstanding Graduate Student Instructor** award for excellence in teaching
- Conducted research in string theory as part of Ph.D. program, switched careers before completing Ph.D.

Bachelor of Arts in Physics *– UC Berkeley*

- Earned **2nd place** in [BAUPC](#), Harvard-run physics competition