

# Dmitriy Vasilyuk

FULL-STACK BLOCKCHAIN AND AI DEVELOPER

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[github.com/reasonmethis](https://github.com/reasonmethis)



## PROFESSIONAL SUMMARY

Transitioned from theoretical particle physics to a 15-year career as a professional poker player, owing a high long-term win-rate to a 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, SQL, React, Langchain, Hardhat, Foundry, AWS, GCP, PyTorch, REST APIs, 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 Assistant Developer** – Redwood City, CA

Sep 2023 – Present

- Created AI assistant apps (1) **DocDocGo Carbon**, licensed to [Carbon, Inc.](#), (2) **DocDocGo Core**, OSS, [featured](#) by Streamlit
- DDG Carbon: ChatGPT-like chat with company's Confluence docs via Google Chat connected to Flask API & vector DB
- DDG Core: "infinite" research loop - ingest 100s of sites on user's topic into knowledge base, use it for chat and reports

**Blockchain Developer at Peaze** – Redwood City, CA

Aug 2023 – Nov 2023

- Developed smart contracts to enable gasless cross-chain transactions using EIP 712/2612 to encode/sign 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 win-rate 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 at 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**

SEE PROJECTS AND EDUCATION BELOW

# 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](http://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

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# 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 **2<sup>nd</sup> place** in [BAUPC](#), Harvard-run physics competition
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