



ANDREA VENUTA

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veeenu

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PRINCIPAL SOFTWARE ENGINEER, QUANTITATIVE ANALYST

Summary

I'm a generalist software engineer, and I have been building software since my teenage years. I adapt quickly to unfamiliar technologies and novel concepts, and thrive in greenfield and research-driven environments.

I have extensive experience with Rust, which has served as the foundation for diverse projects, including data pipelines, static code analyzers, quantitative trading systems, fullstack web applications, rendering engines and developer tools.

I actively develop and maintain open source projects focused on game reverse engineering and graphics programming: [eldenring-practice-tool](#), [darksoulsiii-practice-tool](#), [hudhook](#).

Work Experience

2025 - now **Principal Software Engineer** (independent contractor), Veracode

2020 - 2025 **Principal Software Engineer**, Phylum.io

- Worked across teams to shape the architecture of the platform, from the company's earliest stages through its acquisition by Veracode.
- Developed [vuln-reach](#), an open source library for determining reachability of vulnerable library code in the dependency tree from the user's codebase. [Rust](#) · [tree-sitter](#)
- Developed [issues-rules-engine](#): a distributed system exposing a [Python](#) DSL to define rules to tag packages' metadata for evidence of threat at scale. Improved ergonomics for the research team and reduced computation times by 95%-99%. [Rust](#) · [PyO3](#) · [ZeroMQ](#) · [Docker](#) · [Python](#)
- Developed [CLI](#) extensions: expose the internal CLI functionality to TypeScript, allowing customers to write their own logic for submitting requests to the Phylum API. Wrappers around package managers' CLIs were the motivating use case. [Rust](#) · [Deno](#) · [TypeScript](#)

2020 - 2024 **Adjunct Professor, Financial Mathematics**, Università degli Studi di Firenze DISEI

- Taught 6CFU undergraduate course in English to Italian and foreign students on mathematical methods for interest, amortization, and debt securities valuation.

2017 - 2020 **Quant Portfolio Manager**, Azimut Capital Management sgr

- Managed quantitative equity strategies over ~\$200MM assets.
- Developed a high-performance portfolio management system and algorithmic trading pipeline for strategy execution. [Rust](#) · [IQFeed](#) · [Bloomberg API](#)
- Developed a backtesting platform to deal with path dependencies and hidden costs, improving model reliability and evaluation speed. [C++](#) · [CPython](#) · [Pandas](#) · [Numpy](#) · [Vue.js](#) · [WebComponents](#) · [Jupyter](#)
- Developed a microservices-based financial performance reporting system. [Java](#) · [PostgreSQL](#) · [Node.js](#) · [Vue.js](#) · [Docker Compose](#)

2012 - 2018 **Senior Frontend Software Engineer**, Interfase s.r.l.

- Built web-centric interactive data visualizations, GUI applications and reports. [Canvas](#) · [Virtual Reality](#) · [Unity](#) · [GIS](#)

2011 - 2013 **Fullstack Web Developer**, GWC World

Education

2018 **MSc Finance & Risk Management**, Università degli Studi di Firenze

110L/110. Thesis: ["Deep Learning models for High-Frequency Cryptocurrency Forecasting"](#).

2015 **BSc Computer Science**, Università degli Studi di Firenze

103/110. Thesis: ["Procedural Content Generation and Real-time Rendering"](#).

2008 **Diploma di Perito Informatico**, I.T.I.S. "T. Buzzì"

100/100