Victor Ralev

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EDUCATION

2023-2026
University Of Connecticut
Bachelor of Computer Science
Concentration: Computational Data Analytics
Minor in Economics
Minor in Mathematics
GPA: 3.5/4.0

2018-2022
New Canaan High School
Magna Cum Laude
GPA: 99.8/100

SKILLS

Coding

- Python
- Java
- Javascript
- C++
- HTML
- R
- SQL

Github

https://github.com/Victor-Ralev/Ralev_Personal_Repo

Certifications

AWS Certified Developer - Associate certification

SELECTED UCONN COURSEWORK

Discrete Systems
Data Structures
Systems Programming
Computer Architecture
Algorithms and Complexities
Cloud Computing
Cybersecurity
C++ Essentials
Principles of Databases
Artificial Intelligence
Machine Learning
Big Data Analytics

EXPERIENCE

Internship | Shopmetrics | **Summer 2025**

I independently led an end-to-end data science project that translated complex mystery-shopping survey data into clear, actionable insights for a global luxury-brand client. First, I designed the analytics pipeline from scratch and handled confidential data from thousands of mystery shop visits (surveys). I engineered a clean binary dataframe (0/1 encoding) from raw surveys to enable robust statistical analysis, from which I built two PCA workflows—one for Likert-scale items and one for social-media-specific questions—and translated principal components into clear dimensions of advisor behavior and experience quality. Then, I synthesized results into concise business analysis for stakeholders using a commercial large language reasoning model (OpenAI's o3), fully documented the methodology for reproducibility and compliance, and presented findings in front of key stakeholders.

Internship | TempusBG | **Summer 2024**

I worked with a team of other interns to develop new multifunctional kiosk technology commissioned by the local government. These kiosks used Macintosh operating systems, and were designed to fit many environments. I also worked on a project to create a course for high school students on how to manage a Yanshee robot.

Internship | TeCoSys | **Summer 2023**

I worked with a small programming team to help develop various web projects, mainly in JavaScript and C#. I also helped manage the company website, which helps customers find the correct hardware for their needs.

Internship | Mill River Park | **Summer 2022**

I worked for a non-profit on restoring a polluted park. I helped clear invasive plants, and led the efforts to clear trash from paths and gardens. I also spent significant time on organization and automation of their tax return records.

Projects

Mall Kiosk

- Implemented face recognition technology which had a built in memory system that could recognize any past user.
- Developed a complex language model that could adapt to most situations, and be used in multiple languages. This language model was connected to the outside screen, allowing for users to easily communicate.
- Configured the code to work in a Macintosh system, so that the kiosks can be used in any environment, and can operate with cheaper hardware.

Chess Variants

- Implemented a custom chess variant by extending the Lichess open-source engine, modifying core Scala files to support unique rules and gameplay logic.
- Defined variant-specific behavior in ChessVariant.scala, integrating with Lichess's back-end structure to enable proper game state management.
- Configured environment parameters and build tools to ensure compatibility and maintainability within the Lichess project ecosystem.

Basketball Ranker

- Developed a data-driven system to rank NBA players by performance using comprehensive stat sets scraped from Basketball Reference.
- Parsed and cleaned raw player statistics using Python, then stored the data in a normalized SQLite database.
- Wrote complex SQL queries to calculate custom performance metrics and generate dynamic player rankings across seasons and categories (e.g., PER, TS%, WS/48).

Fantasy Football Value Tool

- Built a tool that consolidates player rankings and projections from multiple fantasy football databases to identify undervalued players across platforms.
- Automated the ingestion of data via web scraping and CSV import, normalizing inconsistencies across sources to ensure reliable comparison.
- Engineered algorithms to detect value gaps based on projected points vs. average draft position (ADP.
- Utilized Pandas and NumPy for statistical analysis and SQLite for structured data storage, enabling efficient querying and cross-source lookups.

Checkers

- Developed a full-featured two-player checkers game using Python, implementing core mechanics such as movement, captures, kinging, and turn-based logic.
- Designed the game with object-oriented principles, structuring classes for the board, pieces, and game state to ensure modularity and scalability.