Ryan O'Connor

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👤 | Summary

Resourceful and detail-oriented professional transitioning from a career in skilled trades to the technology sector. Combines hands-on experience in asset coordination, vendor management, and operational leadership with a strong foundation in computer science and software development. Proven ability to apply systems thinking and technical skills to support IT operations, full-stack development, and data-driven projects. Currently pursuing a B.A. in Computer Science with a focus on building scalable tools and managing real-world infrastructure. Seeking a role where technical aptitude and field-tested problem solving intersect.

🎓 | Education

2022–2025 — **Bachelor of Arts in Computer Science**, *Hunter College*, NYC, Aug. 2025 Completion

Relevant Coursework	Data Structures and Algorithms, Machine Learning, Computer Architecture, Data Mining, Discrete Structures, Symbolic Logic

2015–2017 — **Bachelor of Science in Labor Studies**, *Empire State College*, NYC, May 2017 Graduation

Relevant Coursework	Project Management, Project Estimation, Economics of Construction

♟ | Skills

Programming	C++, Python, JavaScript, TypeScript, Bash, LaTeX
Web Stack	React, Firebase, BootstrapCSS, REST APIs
Tools	Git, GitHub, Jupyter Notebooks, VSCode, TeXStudio, Unraid, Anaconda
Design	GIMP, Icon Design, Poster Creation, Visual Branding
Platforms	Linux/Ubuntu, Windows
Operations	Ticketing Systems, Inventory Tracking, Vendor Coordination, SOP Documentation, Lifecycle Tracking, Field Equipment Handling
Soft Skills	Leadership, Communication, Critical Thinking, Persistence, Flexibility, Problem Solving, Team Collaboration

🖥 | Technical Projects

⚛ React

Summer 2025 — **AllCards – Web App**, *Team of 4*, Capstone

A full-stack web application for organizing and browsing physical trading card collections across franchises.

Technologies	React, TypeScript, Firebase (Authentication and Firestore), BootstrapCSS

- Built responsive UI with modular React components and dynamic routing
- Integrated Firebase Authentication for user registration, login, and session management
- Structured Firestore database to support nested user, franchise, and card collection data
- Queried external APIs (Pokémon, Magic, Yu-Gi-Oh!) to fetch and normalize card information
- Designed architecture to support future expansion of features and franchises

Ⓖ C++

Spring 2025 — **SimOS: Process & Memory Manager**, *Individual Project*

An OS simulation through a simplified OS kernel.
It simulates process scheduling, memory allocation, and disk I/O handling.
Details:

- Designed and implemented a priority-based preemptive CPU scheduler with randomized tie-breaking for equal-priority processes
- Implemented worst-fit memory allocation strategy with recursive cleanup of zombie processes and their descendants
- Simulated FCFS (First-Come-First-Serve) disk I/O request queue with realistic process blocking and unblocking
- Managed process creation (fork), waiting, and cascading termination using a dynamic PCB table and child tracking
- Used basic containers only (e.g., vectors and arrays); no maps or advanced STL structures
- Core logic based on textbook chapters 1–10, prioritizing clarity and correctness over performance

Python

NBA Awards Predictor – Data Mining, *Team of 5*

Fall 2024

A machine learning pipeline that predicts NBA award winners using historical player and team statistics.

  Technologies   Python, pandas, scikit-learn, numpy, matplotlib, BRScraper

- Scraped and cleaned historical data from BasketballReference using BRScraper API
- Engineered features like win shares, usage rates, and adjusted scoring metrics
- Trained logistic regression, random forest, and ensemble models with cross-validation
- Visualized model performance and insights using matplotlib and seaborn
- Managed full data pipeline collaboratively with Git and Jupyter Notebooks

Unraid – Linux

Home Media Server, *Individual Project*

Apr 2022–pres.

A personal home media server operating on an Unraid Virtual Machine and Ubuntu Linux.

- Designed and implemented a home server using Unraid and Ubuntu Linux; selected hardware components and managed full lifecycle from procurement to retirement
- Created custom icons, posters, and media interface elements using GIMP to enhance the system's visual identity and user experience
- Performed system design, device testing, and OS installation (Windows/Linux) tailored to functional requirements
- Conducted ongoing inventory tracking and upgrades for multiple compute devices, ensuring long-term system integrity and storage optimization
- Implemented secure access protocols and planned future expansion for VPN and file/document lifecycle support

▥ | Relevant Experience

Journeyman

Electrician, *Local Union #3 IBEW*, NYC

2015–2022

Provided electrical and fiber-optic installations, maintenance, and repairs.

- Supervised warehouse and jobsite operations including hardware receiving, inventory tracking, and asset staging for deployment
- Managed jobsite requests through physical ticketing logs, asset request forms, and spreadsheet-based inventory tracking
- Coordinated with vendors and procurement teams to order, receive, and deploy job-critical IT hardware and materials
- Maintained detailed logs for audit compliance, asset delivery timelines, and return workflows across multiple locations
- Trained and led apprentices on SOPs involving equipment tracking, lifecycle usage, and safe storage procedures
- Interfaced with clients and stakeholders to report inventory status, resolve discrepancies, and ensure compliance with safety protocols

▤ | Certifications

- NYS DOL – Certificate of Completion for Apprenticeship Training
- OSHA 10
- OSHA 30
- Site Safety Training