



# 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 in *[target field]* 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

## Skills

- Programming C++, Python, JavaScript, TypeScript, Bash, LaTeX
- Web Stack React, Firebase, BootstrapCSS, REST APIs
- Tools Git, GitHub, Jupyter Notebooks, VSCode, TeXStudio, Unraid, Anaconda, GIMP
- Platforms Linux/Ubuntu, Windows
- Operations Manual ticketing workflows, inventory tracking, vendor coordination, SOP documentation
- Soft Skills Leadership, Communication, Attention to Detail, 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

Fall 2024

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

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

Apr 2022–pres.

### Home Media Server, *Individual Project*

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
- 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

2015–2022

### Electrician, *Local Union #3 IBEW, NYC*

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