Charles O'Byrne

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Eagle Scout

EDUCATION

University of Iowa	Iowa City, IA	Graduation: May 2027
Bachelor of Science in Engineering		*Expected Minors:*
Electrical Engineering: Computer		*Math & Computer Science*

ENGINEERING EXPERIENCE

Summer Internship · *Itasca, IL* · *June 2025 – August 2025*
Leister Technologies

- Conducted research and executed test runs to evaluate and implement automation solutions using Excel VBA, Java-based macros, and GUI tools in HTML/JavaScript, whilst paired with AI to improve internal software processes.
- Collaborated with engineering teams through tool repair trainings and technical sessions, gaining hands-on exposure to product design, diagnostics, and industrial heating tool applications.
- Represented the company at major trade show SUR/FIN, networking with partner firms and industry leaders to expand professional connections and strengthen technical knowledge of emerging engineering technologies.

Computer Builder & Consultant · *Oakbrook, IL* · *May 2020 – Present*
Personal Business

- Assembled and configured 30+ custom-built computers, integrating ideal hardware components to meet diverse performance and budget needs while ensuring exceptional customer satisfaction.
- Conducted 10+ educational workshops, guiding individuals of varying skill levels in building computers from scratch.
- Spearheaded multiple client projects simultaneously which focused on overclocking and optimizing computer hardware, resulting in improved system performance and reliability.

Divide and Conquer Movie Review Project · *Iowa City, IA* · *April 2023 – May 2023*
Machine Learning Recommender System

- Built a movie recommender system in Python using the MovieLens 100k dataset.
- Implemented user-based collaborative filtering with Pearson correlation similarity and k-Nearest Neighbors (kNN) to predict ratings.
- Evaluated performance with RMSE benchmarks and compared against statistical baselines (mean ratings, genre, demographics).

WORK EXPERIENCE

Asst. Manager · *Oak Brook, IL* · *August 2019 – Present*
Oak Brook Park District Aquatic Center

- Manage a team of lifeguards and oversee all pool operations, including water chemistry, pump room oversight, and facility maintenance, while contributing to management meetings for strategic facility planning.
- Ensure a safe and welcoming environment by addressing patron needs, resolving issues, and upholding high customer service standards, prioritizing safety and customer satisfaction.

IT Contractor · *Tinley Park, IL* · *July 2021 – August 2021*
EPS Rehabilitation Inc

- Disassembled 7 malfunctioning computers and reconfigured them into 4 operational systems, optimizing resource utilization.
- Performed maintenance on existing computers, updating software and installing new applications to enhance system performance and reliability.

SKILLS

• Java	• Python	• C++	• MATLAB	• Git/GitHub
• Computer Building	• Electronic Repair	• Circuit Analysis	• IT	• Breadboarding