# ANDY BROWN

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#### **EDUCATION**

University of Illinois Urbana-Champaign: Industrial Engineering Major

Expected May 2026

Minors: Computer Science, Critical Film Production

GPA: 3.54

Relevant Coursework: Deterministic Optimization Models, Facilities Planning & Design, Data Structures, Data Analysis, Production Planning and Control, Stochastic Processes, Simulation Modeling, Large System Optimization

#### **EXPERIENCE**

Pentair

## Supply Chain & Operations LDP Intern

May 2025 - Aug 2025

 $Delavan,\ WI$ 

• Drove improvements in ERP production time accuracy by performing time study analyses and facilitating alignment between frontline operators and planning, quality, and manufacturing teams.

- Established framework for standardized production batch quantities, reducing lead time variance by over 30%.
- Participated in Kaizen events to reduce machine downtime through preventive/autonomous maintenance plans.
- Automated in-process component inspection and quality control for injection molding procedures, utilizing machine learning vision systems to reduce annual downtime by 120 hours per machine.

Summer Associate

May 2024 - Aug 2024

Indianapolis, IN

Clark Construction

- Developed an optimized schedule generation program for several trades by utilizing CVXPY.
- Submitted and managed contract documents, such as RFIs and value engineering propositions.
- Managed purchasing, onboarding, safety training, and job-hazard analyses for subcontractors.

**Engineering Intern** 

May 2023 - Aug 2023

Task Force Tips Valparaiso, IN

- Developed an IOT air quality monitoring system for the StationProtect.
- Increased airflow by 50% for the CrewProtect through product redesigns and testing.
- Reduced manufacturing cost and time by 30% for the AirCard.

#### Lab Assistant (SE 101)

Jan 2023 - Present

UIUC ISE Department

Urbana, IL

- Teach CAD software to engineering students by creating instructional material and providing personalized help.
- Mentor students during project presentations and checkpoints.
- Maintain and utilize the 3D printing lab for students' projects.

## **PROJECTS**

**Model Excavator Redesign:** Designed a complete CAD model of a remote-controlled excavator. Improved the existing product using market research, stress analysis, and focus group insights. Modeled 60+ parts in Fusion 360 and integrated full mechanical motion.

#### **EXTRA-CURRICULAR ACTIVITIES**

**DRES/Grainger Advisory Council:** Serve as a representative for engineering students with disabilities. Develop practical solutions to advance support and accessibility for all students.

### **SKILLS**

Technical Skills: Simulation & Deterministic Modeling, Project Management, Data Analysis, LEAN Professional Skills: Collaboration, Cross-Functional Communication, Adaptability, Risk Mitigation C++, Python, ERP Systems, Excel, SolidWorks, Fusion 360, Cognex In-Sight