RYAN ALLEN

Fayetteville, AR | (501) 804-9687 | rja008@uark.edu | linkedin.com/in/ryan-allen-693738390

EDUCATION

University of Arkansas — Fayetteville, AR
B.S. Industrial Engineering and Operations Analytics; B.A. German — *Expected May 2028*
Relevant Coursework: Operations Research, Computing Methods II, Production Planning & Control, Engineering Economics, Linear Algebra

ENGINEERING PROJECTS & LEADERSHIP

Race Car Performance Prediction — Java, Tablesaw, Smile
Course Project, Computing Methods for Industrial Engineers II — Fall 2026

- Cleaned race data, encoded weather/track/temperature as difficulty scores, and used correlation analysis with feature importance to drop 4 weak predictors.
- Trained, tuned, and compared random forest, gradient boosting, and linear regression models on MSE and R^2.
- Used the models to allocate a fixed 1,000-point budget across 15 car and driver attributes with tiered upgrade costs, then tested the final design in the instructor's season-long race simulation.

Zone-Based Campus Parking Permit Optimization — **INEG 26103 — Fall 2026**

- Building an AMPL/CPLEX optimization model to allocate permits across 110+ campus lots using FY25 permit data, ARDOT traffic counts, and TomTom speed data.
- Extending facility location models with permit compatibility, oversell ratios, and traffic constraints.

Engineering World Health, University of Arkansas Chapter — Fayetteville, AR
Design Lead — Nov 2023 – Present

- Lead a student design team building a prototype all-terrain vehicle to deliver medical supplies after disasters.
- Coordinate interdisciplinary teams to balance design trade-offs under strict weight, size, and budget limits.

WORK EXPERIENCE

Steelworx Industrial Group — Fayetteville, AR
Quality Control Intern — Oct 2026 – Present

- Quality control internship in steel fabrication: part-time role held alongside full-time coursework.

Ozark Iron Gym — Fayetteville, AR
Staff Member — Mar 2024 – Present

- First point of contact for a 900+ member, 24/7 gym — handling accounts, billing, facility tours, and membership contracts.
- Oversee nightly cleaning of locker rooms, restrooms, and equipment to health and safety standards.

Dickson Street Pub — Fayetteville, AR
Security Staff & Barback — Jul 2025 – Jul 2026

- Handled entry, ID checks, and de-escalation for 125+ crowds; kept the bar running at peak volume by restocking and handling glassware.

A&A Lawncare n' More — Little Rock, AR
Owner & Manager — Summers 2020 – 2023

- Built and ran a lawncare and handyman business serving 25+ residential clients on recurring service schedules.

SKILLS & ACTIVITIES

Programming	Java (Tablesaw, Smile), R (data modeling), Python, AMPL (optimization modeling)
Data Methods	**Random forest, gradient boosting, linear regression, feature selection**
Software	Microsoft Excel (Solver, pivot tables), SolidWorks, Git/GitHub
Languages	English (native), German (conversational)
Affiliations	Institute of Industrial and Systems Engineers (IISE), Member
Volunteer	First Hand Thrift Store, Bentonville, AR (Jan 2024 – Present)