

CHRISTIAN HOWER

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EDUCATION

Ohio State University Columbus, OH
Bachelor of Science in Computer Science & Engineering GPA: 3.49/4.00 | Expected May 2028
• Coursework: **Software II**, Foundations I | Involvement: **OHI/O Hackathon Program**, **Game Creation Club**

EXPERIENCE

Undergraduate Grader Aug. 2025 – Present
Ohio State Dept. of Engineering Education – ENGR 2301: Exploring Citizenship in Engineering Columbus, OH
• Evaluate weekly technical writing and engineering-ethics coursework for **70+** students across **3** instructors' sections, spanning all class years and disciplines
• Apply a fixed rubric to keep scoring consistent across sections, flagging recurring conceptual errors to instructors to inform lecture adjustments

Intern Engineer May 2026 – Aug 2026
HNTB Philadelphia, PA
• Produced quantity sheets and calculation books from **6** plan sets on the South Bridge project, an estimated **\$1B** design-build, converting drawings into structured cost-estimation data
• Marked up successive iterations of Susquehanna River Bridge plan sets alongside project managers and engineers, cutting sheet errors and review time by an estimated **20%**
• Identified the manual quantity-extraction bottleneck and proposed a **Python** tool to automate plan-sheet data extraction

VR Development Team Intern Oct. 2024 – Jan. 2025
MMC Digital Lab Columbus, OH
• Built a working VR cornhole game in **C++** and **Unreal Engine** with custom **Blender** assets, implementing throw physics, scoring logic, and motion-controller input
• Completed a **10-week** development curriculum in **C++**, Unreal Engine, Blender, and **Git**, shipping **5** individual projects independently from spec to working build

PROJECTS

Bridge Plan Quantity Extractor | **Python**, *pdfplumber*, *openpyxl*, **TypeScript** July 2026 – Present
• Built a modular **Python** pipeline with **pdfplumber** that parses bridge plan sheets, resolving span dimensions and computing deck area and volume previously derived by hand
• Validated extraction output against **6** industry-standard HNTB plan sets, matching engineer-produced quantity sheets on every span with no manual correction
• Built a company-approved **TypeScript** front end that imports a full plan set and exports a formatted, submission-ready quantity sheet via **openpyxl** in a single pass

LEADERSHIP

OHI/O Executive Sep. 2024 – Present
Ohio State's Hackathon Program Columbus, OH
• Recruited and organized **64** student volunteers across **2** flagship hackathon events as Engineers' Council Representative, staffing check-in, judging, and mentor support
• Led sustainability and outreach teams while coordinating with a **20+** member executive board, planning year-round programming and campus-wide recruitment for Ohio State's largest student-run hackathons
Game Creation Club Officer Apr. 2025 – May 2026
Ohio State's Video Game Creation Club Columbus, OH
• Planned and ran **2** campus-wide game jams, coordinating logistics, scheduling, and participant support from concept to event day
• Planned and ran weekly club meetings while maintaining and updating the club's website using **HTML**

SKILLS

Languages: Python, Java, C/C++, TypeScript, HTML/CSS
Libraries/Tools: pdfplumber, openpyxl, Git, GitHub
Other: Unreal Engine, Blender, AutoCAD, Bluebeam, Microsoft 365, Microstation, MATLAB