

JACKSON GRENINGER

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Education

Bucknell University

August 2023 – May 2027

Bachelors of Science in Computer Science and Engineering - 3.64 GPA

Lewisburg, PA

Bachelors of Management in Engineering Management

Minor in Philosophy

- Posse Foundation Full-Tuition Leadership Scholarship (2023–2027)
- Relevant Coursework: Data Structures/Algorithms, Software Engineering, Computer Systems, ECE Systems

Skills

Technical Skills: Java, Python, C, Assembly, R, Unity, Unix/Linux, Git, Version Control, Circuit Design

Soft Skills: Problem Solving, Leadership, Communication, Vision, Teamwork, Facilitation, Tenacity, Scrum Frameworks

Experience

Co-Developer

January 2025 – Present

CoComposer

Lewisburg, PA

- Developing Python software that uses a state machine to schedule musical note events(MIDI) which enables users to create algorithmically generated electronic music; implemented multi-threading for precise real-time playback
- Engineered a domain-specific language (DSL) and live compiler enabling users to define and modify state, transition, and quiver objects by editing “.coco” files at runtime.
- Developing a full-stack system that translates complex state machine logic into an intuitive music production platform, integrating a responsive interface, real-time visualization of states and transitions, and UX-driven features to ensure accessibility for users without programming experience.

Undergraduate Research Assistant

January 2024 – June 2024

Bucknell University: Physics Department

Lewisburg, PA

- Conducted research in Professor Abigail Kopec’s lab on replicating the XENONnT dark matter apparatus; focused on Data Acquisition (DAQ) system design and operation, including setup, calibration, and signal monitoring
- Created and improved open-source Python and C++ scripts to process and filter digitizer data, transforming raw detector signals into clear, analyzable Gnuplot visualizations for research analysis

Projects

Dewdrop Canyon

January 2025 - June 2025

- * Built a Java version of *Stardew Valley* in a four-person team, applying OOP principles, Git version control, and integrating front-end (SceneBuilder, sprites) with back-end gameplay logic.
- * Acted as Project Manager with the role of implementing scrum frameworks and ensuring practical development; facilitated sprint planning to motivate consistent efforts and meeting deadlines
- * Implemented core gameplay logic using event-driven programming to manage character actions such as inventory and crop management; designed front-end components like interactive menus and sprite-based visuals for characters and farm

Unity Fluid Simulation

July 2025

- * Developed a smoothed particle hydrodynamics (SPH) fluid simulation in Unity from the ground up, implementing particle-based physics, pressure computation, and near-density calculations to model surface tension
- * Optimized simulation performance with GPU parallel processing using compute shaders, enabling large-scale, real-time particle interactions and interactive experimentation

Leadership / Extracurricular

CEO

January 2024 - Present

Company A - Bucknell University

Lewisburg, PA

- * Acted as CEO for a 5 month course where I lead 32 students across six divisions within the company: business, service, HR, communications, marketing, and accounting; worked with the vice president of each division to run daily operations
- * Created long term company strategy to execute plan of selling a business product and carrying out a service project
- * Sold over 200 custom products and hosted three fundraising events, resulting in a gross profit of \$10,822 over the course of the semester
- * Entirely redesigned and redecorated the preschool within Otterbein’s Church and Daycare facilities in Sunbury, PA; demolished Otterbein’s decaying and rotted playground and donated over \$6,800 to the Church to rebuild it and open back up to the community

Shop Steward

May 2025 - Present

Bucknell Residential Advisor Union

Lewisburg, PA

- * Represent 115+ RAs in labor-management discussions, facilitating communication with university administration on workplace policies
- * Liaise with OPEIU Local 153 to share bargaining updates and coordinate new contract initiatives
- * Partner with AAUP to align advocacy efforts and strengthen joint campus initiatives