BRYAN WIESCHENBERG

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EDUCATION

The College of New Jersey　　　　　　　　　　　　　　　　　　　　　　　　*Aug. 2022 – Present*
B.S. Computer Science　　　　　　　　　　　　　　　　　　　　　　　　*Expected Graduation: May 2026*
- **GPA:** 3.3/4.0　　Dean's List: Spring 2024
- **Coursework:** Software Engineering, Database Systems, Operating Systems, Computer Architecture, Data Structures & Algorithms, Theory of Computation, Computer Networking, Statistics & Probability, Linear Algebra, Calculus, Physics, Chemistry

PROFESSIONAL EXPERIENCE

Software Engineer, *WorkWell Partnership*　　　　　　　　　　　　　　　　　　*Sep. 2024 – Dec. 2024*
- Spearheaded the development of company-wide system infrastructure as part of TCNJ Software Engineering course, integrating essential components to support a scalable user base
- Optimized backend performance and integrating PostgreSQL to manage users and securely handle sensitive data
- Implemented multi-layer encryption and tiered permissions to ensure strict access control at multiple levels
- Structured the system architecture using UML to create standardized workflows, enhancing modularity, streamlining development processes, and improving long-term maintainability

Computer Science Mentor, *The College of New Jersey*　　　　　　　　　　　　　*Dec. 2024 – Present*
- Mentoring students by offering guidance on foundational concepts, coursework, and career development, while fostering a supportive and inclusive environment
- Promoting effective problem-solving, time management, and project completion strategies to drive academic and personal success

Quantum Computing Research Assistant, *The College of New Jersey*　　　　　　　*Aug. 2024 – Present*
- Collaborating alongside PhD faculty to analyze quantum computing performance against classical approaches
- Exploring foundational quantum algorithms and their applications to enhance computational efficiency
- Applying quantum computing knowledge to evaluate algorithm scalability, providing practical insights for data analysis and complex system optimization

Operations Assistant, *The College of New Jersey*　　　　　　　　　　　　　　*Aug. 2023 – Present*
- Managing a complex database overseeing 4,000+ campus dormitory assignments, ensuring precise tracking
- Responding to and resolving critical incidents involving system operations to maintain campus security and safety
- Streamlined data modification processes by implementing protocols for efficient living space access updates

Residential Advisor, *The College of New Jersey*　　　　　　　　　　　　　　*Aug. 2023 – Present*
- Leading an inclusive community of 100+ residents by providing support, connecting students to resources, and enforcing policies through systemized documentation
- Organized 20+ community-building events, increasing engagement and fostering supportive and inclusive environments

PROJECTS

Video Sharing Service　　　　　　　　　　　　　　　　　　　　　　　　*Oct. 2024 – Dec. 2024*
- Engineered a full stack application with a responsive frontend using React, Next.js, and TypeScript, to enable smooth video browsing and playback
- Constructed a scalable Node.js backend with Docker for efficient deployment and streamlined uploads and processing
- Integrated Google Cloud for storage and Firebase authentication API for secure and reliable user login
- Built a modular system architecture for maintenance, scalability, and independent development across components

Hackathon Scheduling Tool　　　　　　　　　　　　　　　　　　　　　　*Aug. 2024 – Oct. 2024*
- Developed a Hackathon scheduler in Ruby, utilizing room and event CSV data to generate optimized scheduling plans
- Implemented automated room allocation and conflict detection, keeping track of capacity, equipment, and event type

Livestock Metrics Visualization App　　　　　　　　　　　　　　　　　　　*Jan. 2024 – May 2024*
- Created a web application with PostgreSQL and Flask to enable stakeholders to effectively manage a goat ranch
- Designed insightful SQL views and queries to identify trends and uncover correlations between key factors
- Added dynamic visualization to present results from 20+ years of data, improving interaction and data interpretation

ACTIVITIES & LEADERSHIP

- Kappa Theta Pi Professional Technology Fraternity, *Vice President of Technical Development*　　*Feb. 2024 – Present*
- ACM (Association for Computing Machinery), *Member*　　　　　　　　　　　　　*Sep. 2022 – Present*
- DIGIT.all (Diversity & Inclusion Group In Tech for All), *Member*　　　　　　　　　*Sep. 2022 – Present*
- Leadership Development Program, *Program Facilitator*　　　　　　　　　　　　　*Aug. 2022 – Present*

TECHNICAL SKILLS

Programming Languages: C/C++, C#, Java, Python, Ruby, HTML, CSS, JavaScript, TypeScript, SQL

Frameworks/Libraries: React, Next.js, Vue.js, Node.js, Rails, Flask, Django, Selenium, Tailwind CSS, GSAP, Bootstrap

Tools/Software: Git, Jira, VS Code, PostgreSQL, MongoDB, UML, Google Cloud, Firebase, Docker, Microsoft Excel, Unity, MATLAB, R, Windows, MacOS, Linux, Ubuntu

Concepts: Full Stack Development, Agile Methodologies, Version Control, Data Structures, Algorithms, Operating Systems, Networking Protocols, Cybersecurity, Database Management Systems, Cloud Computing, Quantum Computing, Data Analytics, Artificial Intelligence, Machine Learning

Languages: English (Native), Spanish (Professional Working Proficiency)