

BRYAN WIESCHENBERG

✉ bryan.wieschenberg@gmail.com

☎ (973)-216-0825

📍 Towaco, NJ

🌐 [LinkedIn](#)

🐙 [GitHub](#)

EDUCATION

The College of New Jersey

B.S. Computer Science

Aug 2022 – Present

Expected Graduation: May 2026

- **GPA:** 3.4/4.0 Dean's List: Spring 2024, Spring 2025
- **Coursework:** Software Engineering, Database Systems, Data Science, Operating Systems, Computer Architecture, Data Structures, Analysis of Algorithms, Theory of Computation, Computer Networking, Quantum Computing, Statistics & Probability, Linear Algebra, Calculus, Physics

PROJECTS

Full-Stack Productivity Platform ([Visit](#))

Aug 2025

- Engineered a production-ready web app with Next.js, TypeScript, Tailwind CSS, and PostgreSQL, integrating tasks and calendar in a dynamic split-screen interface adopted by **30+** active users, with AWS EC2 + Route 53 powering scalable deployment
- Implemented enterprise-grade authentication with NextAuth.js, OAuth 2.0, bcrypt, SHA-256, and reCAPTCHA v3, reducing unauthorized access by **95%+** and securing sensitive user data through hashed credentials and tokenized email verification
- Designed a high-performance scheduling engine with cached recurrence expansion and state calculations, improving processing speed by **60%** in event-heavy weeks, enabling smooth navigation at all times

End-to-End Encrypted LAN Chat App ([Visit](#))

Jul 2025

- Engineered a Rust-based multithreaded, multi-room chat platform with RSA-OAEP end-to-end encryption, featuring robust data modeling, persistent JSON storage, LAN-based real-time messaging, and shared state management via Arc and Mutex
- Designed a modular command system with **50+** commands supporting full account and room management, moderation, message rate limiting, and session timeout control
- Built a secure system architecture with per-command role-based access control (RBAC) and validated control packet handling, reducing unauthorized actions by **75%+** in simulated attack and resilience tests

EXPERIENCE

Operations Manager, The College of New Jersey

Aug 2025 – Present

- Leading a team of **15** staff in key inventory tracking, streamlining office workflows to support **3,000+** campus residents, resulting in a **40%** reduction in key distribution errors and improved operational efficiency
- Standardizing dormitory procedures through transaction logs, weekly audits, monthly team meetings, and emergency coordination protocols, reducing process overhead for staff and ensuring safe conditions across all properties

Machine Learning Engineer, The College of New Jersey

May 2025 – Jul 2025

- Engineered a proprietary computer vision application with OpenCV to extract spatial data using trained model at a stable **30 FPS**, ensuring low-latency perception and supporting reliable robotic decision-making
- Trained and optimized a Convolutional Neural Network (CNN) in PyTorch on **40,000+** real-world images (captured and augmented), using NumPy and Matplotlib for analysis, improving accuracy by **50%+** and ensuring resilience to lighting/color variations
- Implemented a closed-loop pipeline in ROS that transformed vision outputs into precise autonomous actuation, coordinating multiple robots and reducing manual operator intervention by **25%** compared to baseline teleoperation

SKILLS

- **Languages:** Python, Rust, C, C++, Java, JavaScript, SQL, Bash, HTML, CSS, Assembly
- **Frameworks & Libraries:** Next.js, React.js, Node.js, Express.js, Ruby on Rails, Flask, Tailwind CSS, OpenCV, PyTorch, NumPy, Pandas, Matplotlib
- **Systems & Tools:** Git, GitHub, PostgreSQL, MongoDB, Docker, Jupyter, ROS, Linux, Ubuntu, UML, Firebase, GCP, AWS EC2
- **Core Concepts:** Agile Development, Secure Software Practices, System Design, RESTful APIs, Authentication, OAuth 2.0, OOP, Concurrency & Multithreading, Data Structures & Algorithms, Database Design, CI/CD