

# Doug Rynar

[Doug-github-thing](#) | [doug-rynar](#) | [dougrynar@gmail.com](mailto:dougrynar@gmail.com) | [\(908\) 809-2156](#)

## EDUCATION

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### MEng. Computer Engineering – Lehigh University

2023 – Dec 2026

Eta Kappa Nu IEEE Honors Society

Coursework: Software Engineering, Computer Architecture, FPGA HLS, Algorithms, Microcontrollers, Digital System Design, Operating Systems, Systems Software, Cryptography

### BS. Physics – Lehigh University

2015 – 2019

Coursework: Statistics, Linear Algebra, Electricity & Magnetism, Computational Physics

## SKILLS

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**Programming Languages:** C/C++, Python , Verilog, Java

**Frameworks and Libraries:** ReactJS, SQL, Xilinx HLS

**Software Tools:** Docker, GitHub, and Trello

## PROJECTS

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### Home Monitoring System

- Developed firmware for ESP8266 microcontroller using C for real-time environmental data collection
- Designed and fabricated a PCB sensor board with an I<sup>2</sup>C and UART interface using KiCad
- Built a containerized Node.js backend SQL database & a React dashboard using Docker for deployment

### Social Media App

- Designed and implemented a full stack social media platform in a simulated Agile team environment
- Built a Java API backend with SQL database, developed both Flutter mobile & React web frontends

### Discord Music Bot Web App

- Integrated a Discord music streaming bot with a React web UI using Java (Spark framework)
- Leveraged Google Firebase and Firestore for real-time synchronization between frontend & backend
- Designed an interactive music queue and player interface for enhanced user experience

### Laboratory Monitoring System Data Validation

- Used Python to automate processing of live data from lab stability chambers and room conditions
- Implemented algorithms to detect data gaps, anomalies, and deviations from specifications
- Generated automated reports to notify lab management of potential equipment or data integrity issues

## WORK EXPERIENCE

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### Equipment Specialist III - Pace Life Sciences

Mar 2022 – present

- Troubleshooting and repairing analytical lab instrumentation in pharmaceutical GMP environment
- Own the site's schedule for annual Calibration, Preventive Maintenance, and Qualifications
- Communicate with OEMs to diagnose and repair various lab equipment
- Collaborate with network engineers facilitating communication between instrumentation and LIMS
- Ensure compliance of instrumentation/processes with cGMP, ISO 17025, 21 CFR Part 11

### Molecular Technologist - LabCorp

Jul 2020 – Feb 2022

- Performed PCR assay with emphasis on instrument maintenance in a collaborative environment