

# Bryan Nestingen

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<https://bryan-nesting.com/>

Minneapolis, MN 55406

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## OBJECTIVE:

A versatile software engineer with a foundation in electrical engineering and a background in mathematics education. Seeking opportunities to leverage my expertise in software development, process automation, and full stack web development.

## EDUCATION:

### **B.E.E., Electrical Engineering – University of Minnesota, Minneapolis, MN**

- Graduated December 2017 with high distinction (GPA 3.98)

### **B.S., Mathematics Secondary Education – University of Wisconsin-Eau Claire, Eau Claire, WI**

- Graduated May 2009 with magna cum laude honors (GPA 3.79)

### **Full Stack Web Developer Certificate – University of Minnesota Coding Bootcamp, Minneapolis, MN**

- Awarded December 2023

## SKILLS:

### **Tech Stack**

- HTML, CSS, JavaScript, Python, C#, PowerShell
- React, NodeJS, Express, Bootstrap, Jest
- MSSQL, MySQL, Sequelize, MongoDB, Mongoose

### **Technologies**

- Visual Studio Code, Cognex In-Sight, Savigent Workflow, GitHub, Anaconda, Windows PowerShell IDE, Insomnia, Postman, MongoDB, Jira, SharePoint, Power Apps, Power Automate, Power BI

## ENGINEERING EXPERIENCE:

### **Software Engineer, Savigent Workflow Developer – 3M, Maplewood, MN (April 2022 – July 2023)**

*Developed, tested, and maintained data automation and web applications for 3M manufacturing environments.*

- Led the development of a CRUD software application for scheduling workflow events using C#, SQL, and making API calls to 3M's manufacturing execution system, highlighting the ability to develop software solutions for operational excellence and equipment control.
- Developed and executed MS SQL queries using SSMS for Savigent Workflow database setup.
- Automated server setup processes for Savigent Workflow systems using PowerShell and Power Automate decreasing server system setup time.
- Assisted with the development of front-end web applications using HTML, CSS, and JavaScript.
- Created Power BI reports for team managers to visualize and analyze team skills and skill-gaps.
- Provided technical guidance and mentoring to team members as the corporate artifact librarian.
- Conducted system testing, unit tests, and participated in agile development using Jira.

**Manufacturing Technology Engineer, Machine Vision – 3M, Maplewood, MN (January 2018 – April 2022)**

*Developed, implemented, and supported 3M-proprietary visual inspection systems globally.*

- Developed and supported a real-time inspection software application, using Cognex and Python technologies, to interface with 3M's process historians and manufacturing execution systems, resulting in greater product throughput and decrease in machine downtime.
- Designed and implemented Cognex and PowerShell software/equipment solutions for process barcode reading, resulting in a decrease in machine downtime and improvement with the inspection reliability and quality control.
- Completed the assembly and checkout of controls and electrical equipment in the fabrication shop, including the installation and commissioning of equipment in multiple 3M manufacturing plants, with a highlight project leading the remote installation of an inspection system in China during the COVID pandemic.
- Led multiple visual inspection projects, providing customers with design, installation, and support services.
- Documented technical and design information in 3M's Wiki and SharePoint sites for seamless team collaboration and training.
- Performed on-call duties to ensure service quality, availability, and reliability for process inspection systems.

**Compressor Engineering Co-op Internship – Trane – Ingersoll Rand, La Crosse, WI (June 2016 – August 2017)**

*Assisted in the design of Trane centrifugal compressors.*

- Developed a MATLAB program to analyze the frequency response of compressor loading forces on an active magnetic bearing system.
- Assisted controls engineers to model HVAC systems and principles of operation.
- Led team meetings with a magnetic bearing system vendor for new product development.
- Authored DFMEAs, A3 Summaries, and Engineering Summaries to communicate design results.
- Prepared detailed technical specifications and drawings for electrical components.

**TEACHING EXPERIENCE:****Mathematics Educator – Various Schools, [Various Locations] (June 2009 – June 2014)**

*Taught mathematics grades six through ten.*

- Developed rubrics to assess student's mastery level of the Common Core Standards.
- Utilized Google Apps to compile data from assessments to analyze teaching strategies.
- Designed differentiated instruction activities and daily lesson plans for diverse learners.
- Prototyped, tested, and implemented a functional classroom website for student learning.
- Researched and coordinated the implementation of the Connected Mathematics and Project-Lead-The-Way (STEM) curriculums.

**FREELANCE EXPERIENCE:****Business Consultant and Services – Minneapolis, MN (January 2020 – Present)**

*Developed process automation tools, web applications, and other services for local businesses.*

- Designed and delivered a Power App solution for a local painting business to automate project PDF proposals.
- Developed a custom web application using Google Sites and Drive for trail clearing maintenance training.
- Led trail-clearing maintenance trips through the Boundary Waters Advisory Committee (BWAC) non-profit.

**3M Outdoor Club President – 3M, Maplewood, MN (January 2020 – July 2023)**

*Led a team of volunteers and coordinated monthly informational presentations and activities.*

- Utilized SharePoint, Power BI, Microsoft Teams, and Yammer to connect 3M Outdoor Club members from every continent.
- Developed a Power BI report and Power Automate system, including API connections to Strava, for the "Get Outside Challenge," increasing member engagement.
- Collaborated with multiple 3M diversity Employee Resource Network organizations for intersectional events.