Bryan Nestingen

Minneapolis, Minnesota | https://www.linkedin.com/in/bryan-nestingen/ | https://bryan-nestingen.com/

Software Engineer

Delivering Innovative Software Solutions to Enhance Business Processes

Designs applications supporting internal and external transactional processes. Versatile in all facets of software development life cycle (SDLC), from analysis and design through development, implementation, documentation, and user training. Delivers full-scale software solutions by utilizing strong problem-solving and communication skills in partnership with non-technical and technical audiences. Expertise includes:

Visionary & Strategic Leadership | Product Conception & Specification | Agile Methodologies

Object-Oriented Design & Programming | Data Modeling & Database Programming | Root Cause Analysis

Technical Skills

Languages	JavaScript, C#, PowerShell, Python, HTML, CSS, SQL
Databases	MS SQL Server, MongoDB, MySQL, NoSQL, Mongoose, Sequelize, SharePoint Lists
Technologies	React, NodeJS, Express, jQuery, .NET, Bootstrap, Savigent Workflow, Cognex In-Sight, Power BI

Education and Professional Development

Bachelor of Electrical Engineering (BEE), University of Minnesota – Twin Cities (GPA 3.98)

Bachelor of Science, Secondary Mathematics Education (BS), University of Wisconsin – Eau Claire (GPA 3.79)

Full-Stack Web Development Certificate, University of Minnesota – Twin Cities

Professional Experience

Software Engineer (Savigent Workflow Developer and Corporate Artifact Librarian) **2022 – 2023**

3M, Saint Paul, Minnesota

Developed, tested, and supported Savigent Workflow software applications for 3M's manufacturing environments. Responsible for Savigent Workflow server environment and system setups. Developed and executed MS SQL queries for database setup. Maintained continuous deployments using Octopus Deploy and Ansible software tools. Provided technical guidance and mentoring to team members as the Corporate Artifact Librarian. Adhered to team programming conventions for secure and maintainable code. Researched and learned new technologies and techniques as needed to meet rapidly evolving software needs. Participated in an agile development environment using Jira.

- Enabled manufacturing sites to systematically schedule and manage workflow events by developing a CRUD workflow application using C#, MSSQL, and making API calls to 3M's manufacturing execution system, highlighting the ability to develop software solutions for operational excellence and equipment control.
- Developed a PowerShell script to automate a server build process, decreasing each setup time by 35 minutes.
- Reduced system requirements gathering time by up to 5 days through design and implementation of an Excel form template to collect and centralize key parameter inputs.
- Created a Power BI report for team managers to visualize and analyze team skills and skill-gaps over time.

Manufacturing Technology Engineer (Machine Vision Application Engineer) **2018 – 2022**

3M, Saint Paul, Minnesota

Developed, implemented, and supported 3M-proprietary visual inspection systems globally to enhance process performance and delivery of highest-quality products. Provided consultation, specifications, estimates, and solutions for machine vision systems. Collaborated with internal and external resources to ensure technical, cost, and schedule

requirements were met. Led in the assembly and checkout of equipment in fabrication shops and the installation and commissioning of equipment in 3M manufacturing sites. Performed on-call duties to ensure service quality, availability, and reliability to continuously monitor process performance. Documented technical and design information in 3M's Wiki and SharePoint environments for seamless team collaboration and training. Developed an understanding of industry and 3M technologies and participated in the advancement of technology and intellectual property creation and protection.

- Equipped a manufacturing site to develop metrics to quantify key performance indicators from process changes to increase product output yield by developing a software application and inspection system, using Cognex In-Sight and Python technologies, to deliver the data to 3M's manufacturing execution systems for real-time process feedback.
- Reduced machine-downtime by 5 minutes per hour by developing and implementing a PowerShell software application to read product barcodes from the machine's PC instead of the operator manually scanning the barcode.
- Refactored a Cognex In-Sight software application for feature upgrades resulting in a decrease in execution time of as much as 15%. Increased scalability and flexibility to be used in other barcoding applications.
- Remotely led the installation and commissioning of a full-scale inspection system equipment upgrade at a 3M manufacturing site in China during the COVID-19 pandemic. Expertly crafted detailed installation instructions to seamlessly switch existing electrical panels, camera structures, cabling, and server racks with new equipment.
- Awarded 3M's Manufacturing Excellence Team Award for collaborating and delivering a proprietary software and hardware technology to enhance 3M's manufacturing converting technologies. Designed, implemented, and supported multiple systems globally.
- Key team member in the design and installation of a $2.3M multi-process inspection system supporting a $130M/yr business resulting in a payback of 2.54 years. Responsible for the design, delivery, installation, and support of the barcode reading technology and other electrical components of the system.
- Produced $121K in savings per year by delivering an automated inspection and sorting machine of discrete parts for quality control. Responsible for the machine fabrication, installation, commissioning, training, and support.

3M Outdoor Club President **2020 – 2023**

3M, Saint Paul, Minnesota

Visionary and strategic leader for an internal 3M activity club. Organized and facilitated leadership team meetings. Coordinated monthly presentations on outdoor topics using the voice-of-customer. Maintained accurate club records.

- Collaborated and facilitated multiple intersectional events with 3M's diversity organizations, including 3M's Women's Leadership Forum, New Employee Opportunity Network, and Pride.
- Over 30% of global membership participated in the Get Outside Healthy Living Challenge, a month-long activity challenge encouraging 3Mer's to 'get outside' and rewarding 3M manufacturing sites with Healthy Living incentives. Designed and implemented a Power BI report to utilize the club's Strava data to facilitate friendly competition.
- Increased global membership by 500% during the COVID-19 pandemic by strategically switching from sporadic in-person presentations to consistent monthly virtual presentations and Yammer communications.

Compressor Engineering Co-op **2016 – 2017**

Trane Technologies, La Crosse, Wisconsin

Assisted in the design and testing of Trane centrifugal compressors for new product development. Authored DFMEAs, A3 Summaries, and Engineering Summaries to communicate project results. Prepared detailed technical specifications and drawings for electrical components. Assisted controls engineers to model HVAC systems and principles of operations.

- Developed and delivered a MATLAB software program to analyze the frequency response of compressor loading forces during lab testing on an active magnetic bearing system enabling researchers to classify the loading root cause.
- Advocated for a specific active magnetic bearing system to senior leaders after leading team meetings with different AMB vendors during new product development.

Mathematics Educator **2009 – 2014**

Various Schools, [Various Locations]

Designed and delivered differentiated instructional activities for mathematics grades six through ten. Developed rubrics to assess student's mastery level of the Common Core Standards.

- Prototyped, tested, and implemented a functional Google Site for student learning. Utilized Google Apps to compile data from assessments to analyze teaching strategies.
- Researched and implemented the Connected Mathematics and Project-Lead-The-Way (STEM) curriculums.