# Neal McCloskey

**Senior Continuous Improvement Engineer**

Results-oriented engineer with expertise in process and quality improvements using data-driven decision-making in complex manufacturing environments.

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## Areas of Expertise

Process Design and Improvement, Statistical Process Control, Advanced Process Controls, New Product Integration, SOP Creation, Data Collection & Analysis, Data Validation, Failure Analysis, Quality Assurance, AGILE Project Management, Full Stack Development

## Soft Skills

Problem Solving, Communication, Teamwork, Leadership, Presentations, Training, Project Planning

## Technical Skills

**Programming -** JavaScript, Python, R, HTML, CSS, C++, PHP, SQL, MS Visual Basic, FastAPI, Vue, MS Suite

**Data Analysis / Visualization tools -** Spotfire, JMP, Minitab, Tableau, NWA Quality Analyst

**Specialty Apps -** COMSOL, ChemCad, MATLAB, Mathcad, Maple, CP2K, LaTeX, Jmol, ArgusLab, Aspen Plus, Experion, LabView, AutoCAD

## Work Experience

**Etch Quality / Software Engineer**  *07/2022 – 05/2024*
Samsung Austin Semiconductor  *Austin, TX*

- Led a task force to analyze production failures, improving communication and systemic issues.
- Conducted interdepartmental SPC audits ensuring alignment with headquarters and customers.
- Led team of new engineers in developing and migrating 16+ applications to a cloud structure.
- Migrated SOPs and controlled documents from SharePoint to Atlassian (Confluence), improving version control and capabilities.
- Designed training courses on Advanced Process Controls (APC) and Recipe Management Systems.

**Etch Process Engineer**  *03/2017 –07/2022*
Samsung Austin Semiconductor  *Austin, TX*

- Managed etch processes for legacy and NPI devices, significantly improved capacity and SPC failures.
- Led Advanced Process Control 5S initiatives, ensuring proper setup and noise reduction.
- Created advanced Excel Macros for statistical analysis and reporting across departments.

**Pilot Operations/SPC Engineer**  *02/2015 – 10/2016*
HealthTell  *Chandler, AZ*

- Developed GMP protocols and SOPs in a class 1000 cleanroom. Managed end-to-end wafer production process and training.
- Monitored and reported environmental variables within the cleanroom, reporting to leadership any fluctuations requiring external support and any potential effects on production.
- Conducted process time studies to determine bottlenecks and areas of improvement.
- Implemented the first in line SPC process check utilizing ellipsometry measurements.

**Applications/Research Engineer**  *10/2013 – 11/2014*
Arclin  *Moncure, NC*

- Developed MS Access application for QC data entry, replacing paper filing system.
- Ran analytical chemical experiments for categorization of resin products.
- Installed diagnostic equipment for tensile strength and breaking stress testing.

## Education

**BS in Chemical Engineering**

- Dual minors in Math and Physics

WORCESTER POLYTECHNIC INSTITUTE
*08/2007 – 05/2012*

## Awards

2023 Q&R Department Quality "Bingo" Project Award
2021 Director Award – 14nm SOC RF Micro Arcing
2020 Director Award – 28nm Cu Bridge Systematic TFT
2019 Director Award – AIO Capacity Improvements
2018 Director Award – AIO NPW ER Specs Improvement
Multiple "Spot Awards" for App / Macro work
Eagle Scout Rank - 2007