**Drew Baumgartel**

**Hillsboro, OR**

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**DATA SCIENTIST │ STATISTICIAN**

Accomplished data scientist/statistician with career and academic expertise in statistical modeling, automation, teaching, machine learning, and designed experiments. Consulted with engineers, assisted with data collection and analysis, and developed roadmaps to enable quality decision making. Conducted research to improve statistical process control. Managed teams and working groups to execute projects, produced statistical insights, reports, and dashboards. Core and technical competencies include:

• data analysis / modeling / reporting • data visualization • sampling • components of variance • project management • consulting • teaching • curriculum development • research • statistical learning algorithms • predictive analytics • JMP scripting language ( JSL ) • SQL • Python • SAS • Tableau • MS Excel

**EXPERIENCE**

**Intel Corporation,** Hillsboro, OR **June** **2014 – September 2024**

**Data Scientist / Statistician**

* Researched process control methods that identified wafers that were likely to have a low yield, poor electrical performance, or poor reliability. Tested the efficacy of various methods across a wide range of scenarios using both real and simulated data. Worked with integration and automation to rigorously define and implement successful methods.
* Reviewed dozens of white papers per week written by engineers proposing process changes, providing thorough feedback on white paper content and meeting with authors when necessary to ensure data in the white paper supported claims of process improvement.
* Defined and documented specification limit and disposition limit methodology for Intel Foundry, which provided clarity to engineers on how to implement specification and disposition limits in statistical process control. The documentation was made available to external customers for quality assurance.
* Developed curriculum and taught classes to hundreds of people per year to enable engineers to perform valid and defensible statistical analyses. Course topics included basic statistics, data collection, metrology, designed experiments, machine learning software, and more.
* Collaborated with data scientists, project managers, and domain experts to define research questions and perform statistical analysis using data collected during experiments or as part of ongoing factory performance, presenting findings to engineering, management, and other stakeholders using effective data visualization.
* Created add-ins using JMP scripting language ( JSL ) that were used by factory employees to perform common statistical analyses. The add-ins generated standardized output that de creased point and click analyses previously performed manually and made white paper review more efficient for statisticians and integrators.
* Provided key input for software developers working on software that maintained statistical control of the manufacturing process. Vetted new software features, ensuring that output generated by the software was correct.
* Led joint effort of statisticians and engineers to ensure requirements for the statistical process control portion of Intel 4 certification were met for six different checkpoints. Certification checkpoints communicated details of process readiness to factory leaders and external customers.
* Chaired statistics group coordination meetings for Intel 4 process, providing feedback and direction to statisticians in multiple worldwide factories to ensure that process engineers received the common guidance from the statistics group.
* Defined and worked with automation to implement a method to easily compare files containing proposed new control limits with limits currently being used by the factory, which allowed white paper authors and reviewers to easily verify that the limit file matched the contents of the white paper.

**Northern Arizona University,** Flagstaff, AZ **August 2011 – May 2014**

**Instructor**

* Taught seven different courses, including statistical analysis, calculus, and discrete mathematics. Teaching duties included time in lesson planning, classroom teaching, working in labs, holding office hours, creating unique assessments, and assigning grades.
* Aligned with fellow faculty members on course content and pacing to ensure that all students enrolled in each course were taught the same subject matter at roughly the same time.
* Served on the math department’s contest committee, facilitating math competitions for middle and high school students and providing outreach from the university to local schools.

**EDUCATION**

**Master of Science ( M.S. ) In Statistics**

**Bachelor of Science ( B.S. ) In Education**

Northern Arizona University, Flagstaff, AZ