DENNIS MOTT

ENGINEER / DATA SCIENTIST

CONTACT

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CAREER OBJECTIVE

Highly motivated engineer with close to a decade of experience in a fast-paced manufacturing environment seeking a full-time remote data science role to leverage expertise in Python, machine learning, and statistical analysis for data-driven decision-making.

WORK EXPERIENCE

Mold Design Engineer III   *July 2018 - current*
DENSO Manufacturing Michigan, Inc, Battle Creek, MI
- \+ *Mold Design Engineer II (2016-2018)*
- \+ *Mold Design Engineer I (2014-2016)*
- \+ *Mold Design Co-Op (2013-2014)*

- Collected data and created regression models to predict warp based on part shape, saving over $75k in tuning costs.
- Utilized PowerBI to create an executive dashboard for department tooling profit and cost savings.
- Used NX to design and implement hundreds of mold changes to improve product quality and safety.
- Performed Moldex3D injection molding simulation studies to optimize the fill pattern and warp for both hot and cold runner molds.
- Efficiently managed new mold builds including product design reviews, quoting, mold inspections, progress meetings, molding process rheology.
- Collaborated with quality and product design engineers to ensure new products meet design standards.
- Presented fan shroud warp prediction at the 2017 and 2019 Moldex3D North America User's Conference.
- Embraced additive manufacturing by designing dozens of innovative 3D printed steel conformal inserts, saving over $50k in maintenance.
- Mentored several engineering interns and led them through various projects that were assigned to them.

PROJECTS

Cooling Fan Warp Prediction
Collected part measurement data, product design data, steel measurement data. Utilized Orange for data exploration and to create machine learning models to predict fan warpage. Saved company over $75k in tuning costs.

Melanoma Skin Cancer Detection
Built a Convolutional Neural Network from scratch to predict whether skin lesions are benign or malignant.

Manufacturing and AI: Job Displacement Fears
Examined potential ethical issues as AI is introduced into the manufacturing workplace.

Personal Finance Dashboard
Applied python packages Plotly and Dash to create a personal finance dashboard to analyze spending and monitor account balances.

EDUCATION

M.S.
Eastern University
Data Science
2023 – 2024

B.S.
Western Michigan University
Major: Mechanical Engineering
Minor: Mathematics
2010 – 2014

CERTIFICATIONS

- Data Science (Codecademy)
- Design of Experimentation (SAE)
- Injection Molding Essentials (RJG)
- NX Design (Siemens)

SKILLS

- Python / R
- Tableau / PowerBI
- PostgreSQL
- Flask
- Microsoft Office
- Moldex3D
- NX

HOBBIES

- Travelling
- Woodworking
- Golfing