Joseph Plattenburg

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EXPERIENCE

Director of Data Science July 2018 — Present
Root Insurance Company, Columbus, OH

- Led the telematics data science team in the implementation of new predictive scoring models
- Oversaw and comtributed to migration of production code to a more consistent and robust Python framework

Lead Data Scientist Apr 2018 — July 2018
Root Insurance Company, Columbus, OH

- Built predictive models for scoring, distracted driving, and driver passenger classification, improving predictive power by nearly 2X

Advanced Engineer, R&D June 2016 — Apr 2017
Owens Corning Science and Technology, Granville, OH

- Designed experimental procedure and data analysis algorithm for material property testing
- Led initiative for collaboration with university researchers, leading to a funded project

Independent Consultant 2015 — Present

- Developed prototype software and hardware interface for real-time detection and classification of acoustic events

EDUCATION

PhD, Mechanical Engineering
The Ohio State University, Columbus, OH
May 2016, GPA: 4.0
Focus Areas: Acoustics/Vibrations. Signal Processing, Modeling

Bachelor of Science, Mechanical Engineering
The Ohio State University, Columbus, OH
June 2012, GPA: 3.97
Minors: Mathematics, Music

SKILLS

Operating Systems: Ubuntu, Windows, Mac
Languages: Python, R, MATLAB, SQL (Postgres/Redshift), C, bash
Modeling/Analysis: GLMs, GBMs, random forests, neural networks, PCA, time/frequency domain methods (FFT, autocorrelation, wavelets)
Relevant Coursework: Digital Signal Processing, Advanced Linear Algebra/Linear System Theory, Numerical Methods, Statistics
Spanish Language: read, write, and speak with basic competence

RESEARCH

PhD Dissertation: Analytical Vibration Models for Plates and Shells with Combined Active and Passive Damping

- Developed semi-analytical models of structural noise and vibration response with experimental validation

Undergraduate Research: Bearing Health and Load Monitoring Study

- Measured frequency response of automotive bearing for diagnostics and failure prediction