Bryan Melchert

GRADUATE RESEARCH ASSISTANT

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Education

M.S. Mathematics (emphasis: Statistics, Data Science) - Graduate Research Assistant *(3.67 GPA)*
Purdue University Fort Wayne ~ 2018-Current
- Research Project: Classification and regression machine learning to build a salmon migration timing forecast model for $1.5 billion Alaskan commercial fishery. Features to include live-data model updates during fishing season, with interactive data visualization applications for end-user support.
- Research Project: Neural network and deep learning classification model to identify primary determinants of patient satisfaction for a public health department using a survey response database.
- Relevant coursework: Algorithm Design, Optimization, Probability, Statistical Modeling & Learning, Time Series, Design of Experiments (A/B Testing), Linear Algebra, Big Data & Cloud Computing
- DataCamp certifications: *Data Scientist w/ Python* career track, *Importing & Cleaning Data, Machine Learning, Data Manipulation, Python Programming, R Programming*

B.S. Industrial and Systems Engineering - Minor in Mathematics *(3.6 GPA)*
University of Wisconsin - Platteville ~ 2016-2018
- Senior project in a team engineering environment using linear programming to optimize freight shipping costs by $8300 globally, while optimizing production schedule through Excel VBA
- Relevant Coursework: Regression Analysis, Quality Engineering, Operations Research, Production & Operations Analysis, Six Sigma and Lean, Statistical Process Control, Engineering Economics
- Awards: Dean's List; Tau Beta Pi Honors Engineering Society; Alpha Pi Mu Honors I.E. Society

Skills

Computation: Python (Tensorflow, Keras, Scikit-learn), R (Rstudio, Rmarkdown), SQL, LINGO, Minitab, Bokeh, Tableau, Github, Matlab
Data Science: Machine & deep learning, Data visualization/ cleaning/ reporting, Database querying
Management: Six Sigma Green Belt, Project management, Customer service, Budgeting, Scheduling
Prototyping: Solidworks, Fusion360, CNC machining, 3D printing & finishing, Arduino microcontrolling

Professional Experience

Commercial Fisherman - F/V Bracor Bay; Bristol Bay, AK *(Summers from 2011-2018)*
Deckhand on salmon gillnetter performing all duties of fishing, navigation, and seamanship to high level

Owner and Skilled Tradesman - 3rd Coast Painting & Remodeling; Aurora, IL *(2013-2017)*
Cofounded and managed residential construction company; Performed all sales and project planning

Operations Manager - Sodexo, Inc; Chicago, IL *(2008-2012)*
Managed 13 employees and $125,000 annual budget overseeing all campus grounds and sports fields

References

Dr. Yihao Deng, Professor of Statistics   t: ((260) 481-4185 e: dengy@pfw.edu
Dr. Peter Dragnev, Mathematics Department Chair   t: (260) 481-6382   e: dragnevp@pfw.edu
Corey Boone, Captain F/V Bracor Bay   t: (406) 240-8480   e: coreydboone@gmail.com
Brady Boone, Captain F/V Daga Bay   t: (907) 399-4880   e: bboone2004@yahoo.com