Joseph Tustin

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Summary

My unique path to data science involves semiconductor physics, microwave circuits, and racquets! These varied experiences have prepared me with the knowledge and soft skills necessary for a successful career in today's exciting, evolving, and expanding tech industry. I look forward to working in an environment where my expertise complements the team in a manner that supports the overall business model.

While my training in data science is relatively recent, I have always viewed my life and career through this lens. As an electrical engineer in the semiconductor industry, I used an iterative calculation technique in an excel spreadsheet to solve Schroedinger's equation and perform bandgap engineering by solving a transcendental equation. I wrote code to perform a method of moments solution to match high frequency currents to electromagnetic radiation using Maxwell's equations while looking for a convergent solution. These methods and this scientific background has given me a good foundation for my work as a Data Scientist.

In my work as a tennis and squash professional, I can now see many instances where Data Science principles were employed. Tennis is a game of patterns. To be a good coach, you must recognize patterns that others can not see. In my work as a coach, the process normally involves setting a condition for improvement, doing the work, evaluating the progress, and then iteratively going through these steps until the condition is met. This basic process is a "for loop". So even when working as a racquets professional, I was using Data Science.

As I develop the chops to work in this next phase of my life, I am really excited to rejoin the tech scene here in Denver. I am open to new opportunities as well as listening to other peoples stories. Let's connect and start a conversation about Data Science!!!

Experience

Solutions Engineer

Nylas

Jan 2020 - Present (1 year 4 months +)

Responsible for supporting the sales team with technical knowledge in regards to the Nylas RESTFUL API. The Nylas platform is used by developers to synch and merge email and calendar information. Additional responsibilities include developing the appropriate training tools for in-house use.

Associate Data Science Instructor

Galvanize Inc

Jan 2020 - Present (1 year 4 months +)

Instruct students on the fundamentals of data science utilizing Python. Topics include:

- Data Structures
- Control Flow
- Functional programming
- Pandas
- Numpy

• SKLearn and Linear Regression
• OOP

Tennis Professional / Squash Professional
Self Employed
Jan 2001 - Apr 2018 (17 years 4 months)
• Served in a variety of roles including the Director of Tennis, the Head Professional and staff professional in various locations in both Colorado and Michigan.
• Managed all aspects of the business from marketing and communications to business plan design and management.

Electrical Engineer (Consultant)
National Semiconductor
2000 - 2001 (2 years)
• Successfully modeled and verified designs on Monolithic Spiral Inductors.
• Designed effective matching networks for cell phone circuitry.

Researcher/Teaching Assistant
University of Colorado Boulder
1995 - 2000 (6 years)
• Completed successful work on a mm-wave to optical down converter link.
• Played a key role in a variety of projects including a high-speed, optically controlled microwave modulator and a high power, InP Gunn diode antenna source for a Ka band.
• Led in terms of design, fabrication and testing of various types of antennas.
• Provided teaching support and administration for Electromagnetics I, Circuits II, Transmission Laboratory and Advanced Microstrip Circuits.

Device Design Engineer
Millitech, Inc.
Sep 1992 - Jun 1995 (2 years 10 months)
• Worked on a GaAs PIN diode array used for collision avoidance radar.
• Developed a GaAs Gunn diode to be used as a high frequency source in Ka Band.
• Designed and fabricated Whisker contacted and Planar mixer diodes used in radioastronomy signal detection.

Education

Galvanize Inc
Data Science Immersive
2019 - 2019
A 13 week immersive with 700+ hours of coding, weekly Case Studies, and 3 capstones. Python-based curriculum focused on machine learning and best practices in statistical analysis, including frequentist and Bayesian methods. Utilizes regression, classification, and clustering to model real-world structured

and unstructured data. Explores NLP and Deep Learning techniques, in addition to Spark on AWS. Daily pair programming and explorations into industry workflow techniques.

Cornell University
Bachelor of Science (B.S.), Electrical Engineering - Solid State Electronics

University of Virginia
Master of Science (M.S.), Engineering Physics - Semiconductor Devices

University of Colorado Boulder
Master of Science, Electrical Engineering - Microwave Circuits

Skills

Data Analysis • Python • SQL • Semiconductors • Electrical Engineering • Pandas • Amazon Web Services (AWS) • PostgreSQL • TensorFlow • Matlab