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| Trenton McKinney  6510 SW Evan Ct., Portland OR 97223 · (503) 890-7870  [Email](mailto:trenton.mckinney@gmail.com) · [LinkedIn Profile](https://www.linkedin.com/in/trentonmckinney/) · [GitHub](https://github.com/trenton3983) |
| As an engineer, I’ve spent a lot of time automating tests and analyzing data with python. What I enjoy most is continually expanding my knowledge of python and testing methodologies to increase testing throughput and the accuracy and precision of the data with automation. Data is only as valuable as the insights it brings to light and I excel at using the python data science software ecosystem and tools such as Excel and Tableau for data analysis, visualization and storytelling. |

# Experience

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| 2017/04 – CurrentHardware Engineer, Intel · Produce test plans for the thorough validation of Ethernet network cards.  · Test network cards with a combination of custom automation and bench testing.  · Implement automation to the data analysis process with python and Excel.  · Summarize test results with an electrical validation report.  · Implement automation with python, Jupyter Lab and Pandas to:  · Organize data generated by testing in a way that is human readable to determine full test coverage according to the test plan.  · Produce waveforms and waveform analysis from the raw waveform test points. |
| 2014/04 – 2014/11test engineer, Oxford Global Resources · Everest Consultants, Inc. · Automated functional verification of the Rohde & Schwarz CMW500 with python.  · Functional verification of HIDs, PIR sensors, cameras and NFC devices within Perceptive Pixel (aka Surface Hub).  · Increase hardware and software test throughput by automation with Python.  · Data analysis with Python. |
| 2013/11 – 2014/04rf test engineer, summit semiconductor · Implemented automation with python scripting, which increased hardware test throughput of wireless transmitter (RF) gain control characterization. Increased data allowed for the modeling of the device with linear regression.  · Data analysis was implemented with Python and Excel. |
| 2012/10 – 2013/06signal integrity engineer, intel · Implemented new signal integrity test automation with python to:  · Control and synchronize thermal controller, noise generator, oscilloscope, 72 port RF switch, voltage controller, BERT scope and device under test to characterize Intel CPU  · Reduced a 20 minute manual test process to 3 minutes.  · Increase to the stability of the automation software, was able to reduce the BER testing by up to 4 days.  · Increase hardware test throughput by automation with Python.  · Data analysis with Python and Excel |

# Education

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| bachelor of science electrical engineering, portland state university |
| in progress · UDacityData analyst nanodegreejune 2018 · DATACAMPpYTHON DATA SCIENCE TOOLBOX (PART 1 & 2) · iNTRO TO PYTHON FOR DATA SCIENCE · INTERMEDIATE PYTHON FOR DATA SCIENCE · IMPORTING DATA IN pYTHON (PART 1 & 2)April 2018 · CourseraMachine Learningjuly 2017 · edxDAT206x: Analyzing and Visualizing Data with Excelsep - dec 2015 · courseraUsing Databases with Python · Using Python to Access Web Data · Programming for Everybody (Getting Started with Python) · python Data Structures |

# Skills

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| * Data Analysis * Python · R * Jupyter Lab – Pandas · Matplotlib * Data Visualization * JetBrains PyCharm * Tableau * Electronic Hardware Testing * Electronic Device Characterization * Signal Integrity Testing | * Excel – Power Query · Power Pivot * SQL · mySQL · ETL * Statistics · Linear Algebra · Calculus · Differential Equations * Microsoft Office * GitHub * Machine Learning * Electronics Lab Equipment * Power Rail Functional Testing |

# projects

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| * [Prosper Data Exploration and Visualization - R](https://github.com/trenton3983/UDACITY/tree/master/01_Data_Analyst/05_R_Data_Analysis) * [Excel Automation with Python](https://github.com/trenton3983/Excel_Automation_with_Python) * [Wordcloud with Python and Matplotlib](https://github.com/trenton3983/Testing/blob/master/pdf_word_count.ipynb) * [Titanic Survival Feature Analysis – A Tableau Visual Exploration](https://github.com/trenton3983/UDACITY/tree/master/01_Data_Analyst/08_Tableau) | * [Wrangle OpenStreetMap Data (ETL Project) - Python & SQL](https://github.com/trenton3983/UDACITY/tree/master/01_Data_Analyst/03_Data_Wrangling/Project%20-%20Data%20Wrangling) * [Investigate the Titanic Dataset - Python & Jupyter Notebook](https://github.com/trenton3983/UDACITY/blob/master/01_Data_Analyst/02_Data_Analysis/Project/titanic.ipynb) * [Test a Perceptual Phenomenon - Statistical Analysis w/ Excel](https://github.com/trenton3983/UDACITY/blob/master/01_Data_Analyst/01_Statistics/2015-10-23%20Stroop%20Effect%20Statistical%20Analysis.pdf) |