Guy Reading

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A highly driven Informatics/Data Scientist with 5+ years of experience working with software in various commercial engineering environments and roles, using MATLAB, VBA and Python. A proven track record in delivering on difficult development projects. Experience in a wide variety of Engineering roles, including machine learning, optics characterisation, project management, data storage (SQL) & multi-disciplinary tasks (optics, vacuum, electronics & software). Results oriented but empathetic and supportive within the team.

Experience

JUNE 2018 – APRIL 2020

Informatics Scientist/Ilika, Southampton

Built a multitude of software tools to help the research scientists interpret their data. This includes:

- Statistical/Design of Experiments tools (experiment design & analyzing results: think JMP)
- Image processing tools (from simple pixel brightness binarization to object recognition, using transfer learning with DeepLabV3+ CNN to undertake semantic segmentation on images)
- Tools such as automatic background subtraction in charts (for Raman & XRD equipment data)
- Tools to analyse battery data in different ways and visualization of different aspects of the data
- Simulate/model different battery architectures using COMSOL
- Data pipelines & implementation of various machine learning models to analyse manufacturing process using manufacturing data, bypassing Characterisation/Verification equipment.

I also took on the role of in-house Machine Learning specialist, looking for patterns between manufacturing data and quality data to optimize the manufacturing process. I worked with many different data formats, including JSON and XML, and built SQL databases and worked with Mongodb.

JANUARY 2017 – FEBUARY 2018

Principle Project Engineer/NeevesTECH - Glasgow

- Built the company website
- Implemented wireless communications protocols for our products
- Managed and printed 3D printed mechanical models/prototypes
- Organized & represented at marketing events (Vacuum Expo)

SEPTEMBER 2015 – JANUARY 2017

Development Engineer/Teledyne e2v, Chelmsford

- Continued with my responsibilities taken on during my time as a Graduate Engineer
- Developed automated analysis of measurements for my equipment using excel & VBA
- Built statistical process control (SPC) tools using VBA to automate chart updating within the department

SEPTEMBER 2013 – SEPTEMBER 2015

Graduate Engineer/Teledyne e2v, Chelmsford

- Assisted in optics charactersation of Teledyne e2v's image sensors within the Backthinning department, later taking on responsibility for the Backthinning reflectivity equipment
- Owner of the Quantum efficiency measurement equipment and was responsible for measurement, analysis & reporting.
- Completed placements in Marketing and Characterisation (a separate department)

Education

SEPTEMBER 2011 - MAY 2012

Masters, Merit, Nanoelectronics & Nanomechanics/ University of Leeds

SEPTEMBER 2008 - SEPTEMBER 2011

BSc, Second-Class with Honours, Nanotechnology/ University of Leeds

Skills

MATLAB • Maths & Algorithms • Project Management • Excel & VBA • Deconstructing complex problems • Machine Learning • Python • Creative & can-do-attitude problem solving

Career Trajectory – An Informal Story

I joined e2v a year after graduating from Leeds with a Masters in Nanoelectronics & Nanomechanics. During the year between University and e2v, I worked with my Uncle as a sheet metal worker for four months & took the opportunity to travel in Thailand for a couple of months. I started the Graduate Scheme at e2v and had the opportunity to work in many different roles. After two years, I completed the scheme and moved into a Development Engineer role at e2v. After another subsequent year, a colleague begun discussing an opportunity with me regarding starting a company he had secured funding for. It was an exciting opportunity for us both and I decided to commit to giving that company, NeevesTECH, a chance.

Sadly, the product we were working on didn't gain the traction we needed and funds ran out after a year. I left NeevesTECH and spent the time formally reinforcing my knowledge of MATLAB - automating data processing and Machine Learning - which I had worked with intermittently at e2v and enjoyed. After completing a Machine Learning & MATLAB course (accredited by Harvard Online) I secured a role at Ilika to undertake Data Science using MATLAB as an Informatics Scientist.

Other Credentials & Activities

APM Project Management Fundamentals • Six Sigma Yellow Belt • Machine Learning -Harvard University Online • Deep Learning Specialization - DeepLearning.ai • IET Present Around the World Essex Local Network Runner-Up 2014

Playing the guitar • Snowboarding/surfing • Drone building & racing • Racket sports • Reading science books • Arduino (C++) and Raspberry Pi (Python) projects • Machine Learning & Kaggle Competitions