Jack Nelson

Engineer seeking an exciting new challenge as a Python Developer

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Professional Profile

Accomplished and results-driven professional with more than 10 years of experience in engineering, manufacturing, simulation, and project management. Proven track record of planning and implementing of product and manufacturing solutions from concept to completion. Demonstrated value-added skills in managing complex situations and recommending creative solutions to attain corporate objectives. Expert in independent and collaborative environments and ability to cultivate working relationships with team members and customers.

I have enjoyed developing my own applications in my recent roles and recognize the widespread benefits from the use of programming and automation. I am therefore seeking new opportunities in software development.

Skills

- Python
- Flask
- AWS Certified Solutions Architect - Associate
- Django
- HTML & CSS
- JavaScript (learning)
- APM (Project Management Qualification)
- CATIA / Solidworks
- Dimensional Maturation
- CQI/IRCA Certified ISO 9001:2015 QMS Lead Auditor

Career Summary

Director & Senior Engineer 2018 – Present
J A Nelson Limited, Warwickshire

Held contracts with Jaguar Land Rover and Segula Technologies working in Advanced Manufacturing. Collaborate with product engineers, process engineers, and suppliers to attain capability, including Ppk & Cpk from single parts through to final vehicle assembly. Hold full accountability to mature and build the integrity of the underframe body-in-white assembly. Developed tools focused on automating tasks leading to increased efficiencies in department. Applications included a 'Supplier Document Submission Portal' and a 'Part Pedigree Dashboard', created using Python and hosted on AWS EB. The tools reduced data processing time by 5hrs for each engineer in the department.

KEY ACHIEVEMENT

- Delivery of comprehensive engineering expertise in parts assembling and system interaction in tolerancing, variability, and methods of location and measurement.
- Automation of PPIR submission process and the introduction of a part pedigree dashboard.
- J A Nelson Ltd received a letter of recognition from Jaguar Land Rover manufacturing director as a company that goes above and beyond to contribute towards the company's success.

Senior Manufacturing Engineer 2017 – 2018
REFCO Metals, Dubai, UAE

Responsible for plant operational metrics, including productivity and quality of precision extruded aluminium parts. Delivered engineering change services such as tooling updates, installation and commissioning of plant facilities. Led meetings a on weekly basis with suppliers and customers to determine and resolve all problems. Developed tools for monitoring production quality.

KEY ACHIEVEMENTS

- Development of a Flask application for the control of production quality. The application reads files output from a CMM and then extracts data to a SQL database for monitoring and reporting.
- Led engineering change from technical feasibility assessment and quotation to implementation in production.
- Utilised quality automotive engineering tools and standards, including APQP, PFMEA, PPAP, GD&T, 8D, and IATF 16949:2016.

Business Process Development 2015 – 2017
Jaguar Land Rover, West Midlands

Strategically planned, developed, and delivered automation and press motion program's (OLP's) for tooling in Servo Pressing Facilities. Led development of a new suite of Matlab based tools to automate the creation of OLP's and report facility performance. Using these tools to generate insight, build data driven business cases and set production targets.

KEY ACHIEVEMENT

- Recognised and created tools to realise the performance opportunities in servo press line facilities
- Developed procedures and processes for the delivery of automation tooling to press line facilities
- Completed a Post Graduate Certification in Automotive Technology

Advanced Manufacturing Project Engineer 2014 – 2015
Jaguar Land Rover, West Midlands

Project Co-ordinator for the delivery of press tooling on a large SUV from concept to verification build. Recognised and then realised performance opportunities in the servo press line facilities, in addition to conducting regular visits between various production sites and abroad at suppliers.

KEY ACHIEVEMENT

- Successfully completed Jaguar Land Rover graduate development scheme within Tooling and Pressed Parts Group.
- Project Co-ordinator for the delivery of press tooling on a large SUV from concept to verification build.
- Analysed the technical issues of manufacturing shop floor and efficiently resolved problems.

Apprentice Mechanical Engineer / Business Development Engineer 2007 – 2012
Clark Door Limited, Cumbria

Proactively spearheaded implementation of new internal and external company websites after holding a shop floor role which included operating CNC machinery, fabrication, and interpreting engineering drawings. I worked as an estimator; pricing potential contracts for the company as well as undertaking business development projects such as updating all marketing literature and upgrading costing applications.

KEY ACHIEVEMENT

- Conceptualised, designed, and launched high quality new website of company using my knowledge of Drupal CMS, HTML, CSS and PHP.

Education

Post Graduate Certificate in Automotive Technology **(Merit)** 2016 – 2019
University of Warwick

Master of Engineering **(First Class Hons)** 2010 – 2014
Lancaster University

Higher National Certificate in Engineering **(Double Distinction)** 2008 – 2010
Carlisle College

NVQ Level 2 & 3 – Fabrication & Welding 2006 – 2010
GenII Training Centre

Key Accomplishments

- Lead author on two published journal articles in the 'International Journal of Advanced Design and Manufacturing Technology' and 'Journal of Thermal Engineering'.
- Development of a production quality monitoring application for control and reporting of CMM data
- Successfully launched an on-campus market stall with accompanying Magento website which turned over £30,000 during my second year at university.
- Project Manager on final year MEng project which involved leading a team of 5 students and working closely with the project's sponsor; an industry leader in Additive Manufacturing.
- Completed an Advanced Engineering Apprenticeship at a local manufacturing company.