**Arun Baby**

EIT, ASQ-CQPA, CSSGB

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**Summary**

* Specializing in product development, design and quality assurance with a focus on the manufacturing industry with more than 3 years of experience
* Proficient in AutoCAD, SOLIDWORKS and CATIA V5. Currently pursuing CAPM certification.
* Experienced in R&D of products from conception to final production
* Excellent understanding of Lean and Six Sigma tools and passionate about implementing Lean Manufacturing philosophy in achieving waste reduction and improving process flow

**Work Experience**

**Ryerson University** Toronto, ON

**Research Assistant (Design and Product Development)** Sept 2019 – May 2020

* Designed and managed the configurations of lighting fixtures and aircraft cabin interiors as part of R&D efforts into developing modular aircraft interiors using CATIA V5 and SOLIDWORKS
* Performed multi-disciplinary research combining aircraft lighting systems, image processing and human perception for enhancing passenger comfort using artificial intelligence (CNN’s)

**Test Center Examiner (Administration)**Sept 2018 – May 2020

* Facilitated access to education for students living with disabilities using advanced technology while working as part of a dedicated team of 70+ fellow professionals
* Managed confidential information and ensured fair opportunities for students with disabilities
* Liaised between academic staff and administration on a daily basis to ensure smooth operations

**Ryerson University & Bombardier Aerospace** Downsview Park, ON

**Graduate Researcher (Design and Product Development)** Sept 2018 – Sept 2019

* Developed an entire neural network to categorize large image data sets for facial identification to be used to automate and reduce workload of cabin crew members using MATLAB and Python
* Employed statistical analysis to improve process flow, resource utilization and aide project management using Microsoft Project software
* Ensured that the designs of the project moved into prototype stage and eventually was manufacturable by using Design for Six Sigma (DSS) methodology

**Honda of Canada Manufacturing** Alliston, ON

**Internal Parts Auditor (Quality)** Nov 2017-Jan 2018

* Employing statistical process controls (SPC) techniques and metrological testing to enforce quality control and to ascertain products are within specification
* Conducted routine audit of raw material supplies and production line output of 500+ automotive parts everyday inside a high-volume manufacturing facility

**Quality Assurance Inspector (Co-op)** Aug 2017-Nov 2017

* Put lean manufacturing philosophy to practice to achieve waste reduction and employed advanced quality tools like Kaizen, 5S and 5-Why techniques to ensure on-time operations
* Performed receiving inspection and acceptance sampling operations

**Indian Space Research Organization**Kerala, India

**Student Intern (Quality and Testing)** Aug 2016-Dec 2016

* Developed and maintained detailed documentation (FMEA) of mission-critical subsystem
* Supported senior engineers in testing, maintenance and statistical process control of equipment
* Developed fault-tree analysis and assisted in reliability estimations of subsystems for booster rockets

**Education**

**Master’s in Engineering – Aerospace/ Mechanical Engineering**

*Ryerson University |Toronto Status: Graduated in 2019*

*Program Highlights:* Reliability engineering, Advanced statistics, Advanced Manufacturing and Systems Integration

**Ontario College Graduate Certificate in Quality Assurance - Manufacturing & Management**

*Sheridan College | Brampton Status: Graduated in 2017*

*Program Highlights:* Engineering Statistics, Design of Experiments, Lean and Six Sigma, Statistical Process Control, Quality Planning, ISO Standards, Quality Audit, Instrumentation and Process Control, Total Quality Management, GD&T

**Bachelor’s Degree in Mechanical/Aeronautical Engineering**

*University of Calicut | India Status: Graduated in 2016*

*Program Highlights:* Propulsion, Aerodynamics, Electrical systems, Structures, Metallurgy and Material Sciences, Computational Fluid Dynamics, Control Engineering

**Projects**

**Intelligent Lighting Control for Aircraft Cabin Using Neural Networks Based on Human Perception (2019)**

Developed a robust passenger identification system to control zone lighting onboard business jets based on the Bombardier Global 7500.

**Design of a Composite Helicopter Rotor Manufacturing Assembly (2018)**

Designed a comprehensive composite main rotor blade manufacturing assembly, including the tooling, plant layout and process flow.

**Comprehensive Analysis of Carbon Nanotube Reinforced Aluminum Composite (2018)**

Analysed the properties, manufacturing processes and developed a comprehensive understanding of the future prospects of Carbon Nanotube reinforced Aluminium composites.

**Certifications and Professional Memberships**

* **Engineer-in-Training (EIT)** *-* Professional Engineers Ontario (PEO)
* **Certified Process Quality Analyst (CPQA**) - American Society for Quality (ASQ)
* **Certified Six Sigma Green Belt (CSSGB)** – Six Sigma Academy and Ryerson University
* **Certificate in Introduction to Project Management** - University of Adelaide and edX
* **Certified Associate in Project Management (CAPM)** – Project Management Institute *(In Progress)*