
Aravamuthan Soundarajan

E2 L&T Avinash Apartment, 420-421, Bharathi colony, Peelamedu, Coimbatore, Tamilnadu-641004

Mobile: +91 9445917391

aradtimon@gmail.com

CAREER OBJECTIVE

Looking for an entry level CAE engineer position in an organization or company where I can utilize my skills to company's growth and grow with the same.

EDUCATION

2015-2017	Master of Engineering, Engineering Design - PSG College of Technology. Coimbatore, Tamilnadu. Anna University, Chennai CGPA :8.86 (Till 2 nd Semester)
2010-2014	Bachelor of Engineering, Automobile Engineering - Sri Venkateswara college of Engineering. Chennai, Tamilnadu. Anna University, Chennai CGPA :8.25
2009-2010	Higher secondary - PACM Higher secondary school. Rajapalayam Physics, chemistry, Biology and Maths % of Marks : 95
2007-2008	High school - Govt.Hr.secondary school. Keelarajakularaman Maths and Science % of Marks : 93.6

SUMMARY OF QUALIFICATIONS

- Modelling and Assembly of machine components
- Preparation of Bill of Materials
- FEA 2D and 3D meshing
- Mid surface extraction of Plastic imprints
- Linear and Non-Linear structural analysis

SKILLS

- | | |
|---------------------------|-----------------------|
| • Basics in C programming | • PTC Creo v3.0 |
| • Hypermesh v 13.0 | • Optistruct v13.0 |
| • Abaqus 6.14 | • Microsoft office 13 |

AREA OF INTEREST

- | | |
|-------------------------|-------------------------------------|
| • Strength of Materials | • Practical Finite Element Analysis |
| • Fracture Mechanics | • Mechanical Vibrations |

EXPERIENCE

- 2015 **CAE Intern Trainee - Techzilon Training solutions. Bangalore**
- Trained in mesh generation with a very strict criteria and minimum time constraint.
 - Surface editing and clean-up.
 - Quality checks according to client requirement.
 - Transition of mesh. (For crash, structural analysis).
 - Use of 1D elements, such as rods, RBE2, CBAR, CBEAM.

PROJECTS

Consultancy work -
M/s Sigma Industries Ltd, Coimbatore

FE Analysis of split glands for High pressure piping applications

- FE meshing of split gland using Hypermesh v13.0
- Maintaining element quality (Jacobian >0.7, Warpage <10 deg)
- Boundary conditions and Analysis using Abaqus v6.14
- Best boundary condition is selected based on iteration
- Results are validated and Redesign is proposed to withstand the pressure levels

Internship Project

Car door Assembly mesh

- 2D FEA meshing for car door with the criteria of Min element size 4, Max element size 20, warpage (< 10), Jacobian 0.7, skew (< 45 deg) and 5 % of trais and Quality Index 0.20 was achieved.
- Assembly was done by using 1-d elements and Bolt connections.
- Thickness and Properties were assigned using shell elements.
- Free-Free modal analysis (CARD IMAGE: EIGRL) was performed to check the mesh connectivity.

Internship Project

Mid Surface Extraction – Articulator

- Quad4 and Tet3 mixed mesh was done on the surface
- Quality criteria's such as Jacobian (> 0.7), skew (< 45 deg), Aspect ratio (<5), Warpage (< 10 deg) and 3 % tria elements were kept as a quality target and Achieved it.

IGCAR-Kalpakkam

Collapse Load estimation of Dome shaped roof slab under Non-linear conditions. (Numerical and Experimental)

- Structural mesh is generated using S8R element by manual meshing technique.
- Jacobian, Warpage and skew is checked and elements are cleaned up meet to quality criteria.
- Natural frequency of the Roof slab is found using modal analysis and also mesh connectivity is verified
- Linear buckling analysis is carried out and buckling load is reported
- Non-Linear buckling is carried out by considering material and Geometrical non-linearities
- Collapse load is estimated using twice elastic slope method
- Weld defects are considered and useful life of the roof slab is estimated

AREA OF STRENGTH

Quality Mesh

Mesh for Structural Analysis with satisfying quality criteria, Mesh flow and trais (less than 5 %)

ACHIEVEMENTS

University 9th Rank - Anna University. Chennai, 2014

NCC 'B' and 'C' certificate with 'B' grade

ACTIVITIES

SAE Baja 2014

Responsibilities: Design and Analysis of Wishbone and steering Knuckle

TEST SCORES

2015

GATE

Marks :44

Score :469

VOLUNTEER

2010 - 2014

NCC- Airwing

Conducting Parades and Arranging Blood donation camps

PERSONAL

DOB : 30.05.1992

Blood Group : A1+ve

Languages : Tamil, English and Telugu

Gender : Male

REFERENCES

Available upon request

DECLARATION

I hereby declare that the above provided information is true to my knowledge and belief.

Date :

Place :

(Aravamuthan S)