

# Somayaji Ayalasomayajula

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## EDUCATION

### RYERSON UNIVERSITY

#### B.ENG-MECHANICAL ENGINEERING

May 2016 | Toronto, ON

GPA: 4.12/4.33

Dean's List (All Semesters)

### UNIVERSITY OF LOUISIANA

#### B.ENG-MECHANICAL ENGINEERING

May 2014 | Lafayette, LA

GPA: 4.0 / 4.0

## COURSEWORK

Thermal Systems Design

Materials Selection for Design

Reliability and Decision Analysis

## PROJECTS

Design of platen press system

Steam cogeneration power plant

Heat exchanger to ASME/TEMA code

Pressure vessel to ASME B31.3 code

Motorized Jansen linkage mechanism

## SKILLS

### MECHANICAL

FMEA • RCM • Stress Analysis • Finite Element Analysis • Computational Fluid Dynamics • Tensile Testing • Hardness Testing • Impact Testing • Scanning Electron Microscopy • Die Casting • Heat Treatment • Welding Procedures

### SOFTWARE/PROGRAMMING

PowerBI • SQL • SSIS • SAS • AutoCAD • Solidworks • eQuest • VBA • Matlab •  $\LaTeX$  • HTML/CSS • Javascript/jQuery • PHP/SQL • C/C++

## EXTRA CURRICULAR

2012-2016 Ryerson Varsity Pitcher

2010-2016 Local Baseball Coach

## AWARDS

2015 Robotics International Award

2014 Ryerson Alumni Award

2014 Goodwill Ambassador of Lafayette, Louisiana

2013 Ryerson Alumni Award

2013 North American Die Casting Award

## RELEVANT EXPERIENCE

### NUCLEAR PROMISE X

#### INNOVATION CATALYST

January 2019 - Present | Kincardine, ON

- Developed Business Intelligence reports for Bruce Power Project Controls.
- Automated reporting and data extraction, transformation, and loading operations with SSIS.
- Developed dashboards and visuals with drill-down/drill-through capability using PowerBI to connect data from multiple project controls systems including Workday, Ecosys, ARM, P6, and Passport.

### KINETRICS NSS (FORMERLY AMEC FOSTER WHEELER)

#### ASSOCIATE ANALYST - MECHANICAL DESIGN

December 2017 - January 2019 | Toronto, ON

- Performed conceptual, preliminary and detailed engineering design for mechanical equipment in nuclear power plants as well as technical specifications for mechanical components.

#### ASSOCIATE ANALYST - STRUCTURAL MECHANICS

Jul 2016 - January 2019 | Toronto, ON

- Developed piping models in PIPESTRESS and Autopipe to perform stress analysis in accordance with ASME and CSA codes.
- Performed analyses to determine seismic adequacy of piping systems.
- Performed detailed stress analysis calculations to qualify piping supports, attachments and other non standard components.

#### ASSOCIATE ANALYST - COMMERCIAL SERVICES

Mar 2017 - November 2017 | Toronto, ON

- Developed a robust web-app using PHP/SQL to replace the existing manual purchase order system.

### BIONX INC. | MECHANICAL ENGINEERING COOP: EMBEDDED SYSTEMS

Sep 2015 - Dec 2015 | Aurora, ON

- Participated in prototype builds, and reliability testing of mechanical systems.
- Developed embedded software for user interface console on electric bikes using C programming.

### SUNCOR ENERGY | RELIABILITY ENGINEER: MOBILE EQUIPMENT COOP

Jan 2015 - Aug 2015 | Fort McMurray, AB

- Developed Weibull proportional hazards model using R, VBA and applied statistics and economics to predict failures using condition monitoring variables to optimize maintenance schedule.

## OTHER EXPERIENCE

### HUSKY ENERGY | MAINTENANCE ENGINEER: PLANT ENGINEERING COOP

Sep 2014 - Dec 2014 | Lloydminster, SK

### ONTARIO POWER GENERATION | MECHANICAL ENGINEER INTERN:

#### MAJOR COMPONENTS

May 2014 - Aug 2014 | Pickering, ON

### RYERSON UNIVERSITY | UNDERGRADUATE RESEARCHER

Jan 2013 - Dec 2013