

# Nathan Joshi

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## Career Objective

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Energetic college student who is almost finished with a BS in Industrial Engineering and a minor in computer science from the University of Illinois at Urbana-Champaign seeking a full-time position where I can apply and enhance my aptitudes in data science and/or software engineering.

## Education

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University of Illinois

Urbana-Champaign, IL

Bachelor of Science, Major in Industrial Engineering, Minor in Computer Science

May 2020

GPA:

3.1 / 4.0

## Experience

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### Samba Safety

Data Science Intern

May 2019 - August 2019

- Total Risk Score Model
  - Worked on a model to determine the probability of a monitored driver being involved in an accident, violation, or suspension given their previous driving history
  - Applied feature selection algorithms, feature engineering, and tested several statistical models including neural networks, boosted trees, logistic regression, and naïve bayes
  - Achieved a 5% increase in AUC score (accuracy metric) over team's previous best
- Time Series Analysis
  - Performed a detailed predictive time series analysis on the company's order volume
  - Used R markdown to summarize findings and present it to the chief financial officer of Samba

### Itasca Plastics

Engineering Intern

May 2018 - August 2018

- Used CAD and CAM software to design and create several appliances and modifications such as:
  - A portable hydraulic press frame that reduced the cost and time of changing punch dyes
  - A self-centering laser alignment tool that increased the precision of extrusion line setup
- Used data analysis techniques to optimize the plastic extrusion process
  - Defining tracking and success metrics for experiments on the extrusion line setup
  - Testing conventional line operation techniques to lower cost and increase efficiency

## Projects

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### Time Tracker WebApp

January 2020 - present

- Web application that allows the user to track how they spent their time over the course of the day for the purpose of increasing awareness and productivity
  - Server with MongoDB
  - RESTful API with express.js
  - Front end with react.js
  - Connected front end to back end and managed state with redux

## Student Consulting for Spraying Systems Company

August 2019 - December 2019

- Data analytics consulting for Spraying Systems Company, a major manufacturer of industrial spray products, focusing on a prototype “smart-nozzle”
  - Developed data ingestion and processing algorithms
  - Created metrics to quantify characteristics of data
  - Used metrics to create a regression model to predict the failure of the nozzle as well as give the customer real time diagnostics.

## LaTeX Conversion App

March 2018 - May 2018

- Developed an app that uses machine learning and computer vision to convert a picture of any mathematical expression to its LaTeX equivalent.
  - Developed the front and back end using android studio
  - Connected the app to an external API

**Note:** projects can be found at: <https://github.com/nvjoshi2>

## Leadership and Activities

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### Table Tennis Club

Urbana, IL

*Member*

May 2018 - present

- Participating in practices three times a week
- Organized tournaments and other events for the club
- Helped new members with technique through group and one on one drills

### Boy Scouts of America

Naperville, IL

*Eagle Scout*

August 2015 - present

*Senior Patrol Leader*

January 2014 - September 2014

- Organized meetings of 100+ scouts and adults, created schedules, and set the agenda
- Started a book drive that collected 2000+ books for Open Books Charity

## Relevant Coursework

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- Math 415: Linear Algebra
- IE 300: Statistics/ Analysis of Data
- IE 310: Models of Optimization
- IE 370: Stochastic Processes
- CS 125: Introduction to Computer Science
- CS 173: Discrete Structures
- CS 225: Data Structures
- CS 357: Numerical Methods
- CS 482: Event Based Simulation
- CS 498: Applied Machine Learning

## Skills

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- **Computer Programs:** Solidworks, Solidworks CAM, Microsoft Office, Tableau
- **Programming Languages:** Python(pandas, numpy, sklearn), Java, JavaScript, C++, HTML, CSS, SQL, MongoDB
- **Programming Frameworks:** React, Express
- **General:** Financial analysis, statistics, data mining/cleansing, Optimization algorithms, machine learning techniques and strategy, web/mobile application development