# Nathan Joshi

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# Career Objective

Energetic eagle scout and recent graduate 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 aptitude in software/web development.

#### Education

#### University of Illinois

Bachelor of Science, Major in Industrial Engineering, Minor in Computer Science GPA Urbana-Champaign, IL May 2020 3.1

### **Skills**

- Programming Languages: Python, Java, JavaScript, C++, HTML, CSS
- Programming Frameworks: React, Express
- Databases: MongoDB, MySQL
- Cloud: AWS (EC2, S3)
- IDEs: Microsoft Visual Studio, IntelliJ
- **General:** web/mobile application development, statistics, data mining/cleansing, optimization algorithms, machine learning techniques and strategy

# **Projects**

#### Senior Friendly Voice Channel Desktop App

March 2020 - current

- Desktop application for creating online voice channel communities for assisted living facilities whose residents, as the most at risk age group for covid-19, are required to remain quarantined alone in their rooms.
  - Server created in Java and hosted on AWS ec2
  - Front end created in Java with JavaFx

#### Time Tracker Web App

January 2020 - March 2020

- 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
  - o Server created with MongoDB and express.js and hosted with AWS ec2 instance
  - Front end created with react.js and hosted in AWS s3 bucket
  - o 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.

live projects / demos: <a href="https://www.nathanjoshi.com/portfolio">https://www.nathanjoshi.com/portfolio</a>

code: https://github.com/nvjoshi2

#### LaTeX Conversion Mobile 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

## Experience

#### 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
  - o Achieved a 5% increase in AUC score (accuracy metric) over team's previous best
- Time Series Analysis
  - o Performed a detailed predictive time series analysis on the company's order volume
  - o Used R markdown to summarize findings and present it to the chief financial officer of Samba

# Leadership and Activities

#### **Table Tennis Club**

Urbana, IL

Member

May 2018 - present

- 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