

APPLIED MATH & STATISTICS MAJOR · ECONOMICS MAJOR · JAPANESE MINOR · MACALESTER COLLEGE **1** +1 808-276-1691 | **■** sphan@macalester.edu | 🞧 sp314 | In sonkphan

Education \_

General GPA: 3.84 · Graduating May 2021 · Dean's List

**Coursework** Econometrics · Correlated Data · Mathematical Statistics · Bayesian Statistics

Differential Equations · Linear Algebra · Money & Banking

**Activities** Asian Pacific Month Planning Board · X-ertion Dance Club · Japanese Conversation Circle Leader

## Experience \_\_\_\_\_

**3M** Saint Paul, MN

#### DATA SCIENCE INTERN - FINANCE DATA ANALYTICS TEAM

May 2019 - Aug 2019

- Led an end-to-end project to automate financial forecasting and reporting
- Developed proprietary time-series forecasting algorithm and front-end interface for all divisions
- Created work flow for team to create and deploy data applications in Flask
- Worked on department re branding and outreach to other departments to increase visibility within 3M

Minnesota Wild Saint Paul, MN

HOCKEY ANALYTICS INTERN - HOCKEY OPERATIONS TEAM

Jan 2019 - May 2019

- Analyzed years of NHL play-by-play data to deliver a research insight for Operations
- Fit a **Bayesian regression** to infer difficulty of completing a play
- Presented interface that evaluates player performance based on the difficulty inference model

Lab 651 Saint Paul, MN

SOFTWARE ENGINEER - HOME APPLIANCE API TEAM

Aug 2018 - Jan 2019

- Built and managed Rails APIs for Internet of Things devices serving 10,000+ users
- Extracted and cleaned large unstructured data from PostgreSQL and Redis databases
- Worked within a **DevOps** environment, delivering software consulting to global enterprises

**Jot: Write on Time** Saint Paul, MN Jun - Aug 2018

FOUNDER & FULL STACK DEVELOPER - STARTUP

- Created a platform for writers to share & critique writing and form online writing circles
- Built a RESTful Rails application, utilizing PostgreSQL and React. is for front-end
- Led successful testing campaign, reaching out to 500+ writers to test application
- Worked as a **2 person** team through MacStartups, a start-up accelerator program,

### Skills

**Programming** Python · NodeJS · Java · HTML/CSS/JavaScript · Bash **Analytics** R/Shiny · SQL · Tensorflow · Jupyter · Plotly · Matlab

**Web & Media** Express · D3 · React.js · Django/Pyramid · Ruby on Rails · LaTeX

# Projects \_

### Transit Bayes - (https://sonphan.netlify.com/post/transit-bayes/)

- A Bayesian analysis on the effect of transit accessibility to real estate price
- Cleaned through transit GTFS data files and geocoded home location coordinates
- Inspired by Pilgram, West from Regional Science and Urban Economics

### **Randomness in Sport**

- Research explores the idea of variance across different major North American sports
- Modeling team strength within leagues to gauge the variance of outcomes i.e. large upsets
- Preparing abstract and preliminary drafts for submission to various sports statistics journals