

# Son Phan

APPLIED MATH & STATISTICS MAJOR · ECONOMICS MAJOR · JAPANESE MINOR · MACALESTER COLLEGE

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## Education

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**General** GPA: 3.89 · 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 ·  
Econometrics and Probability Theory Teaching Assistant · Independent Research (Statistics)

## Experience

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### 3M

*Saint Paul, MN*

DATA SCIENCE INTERN - FINANCE DATA ANALYTICS TEAM

*May 2019 - Aug 2019*

- Developed proprietary **time-series forecasting algorithm** and **front-end web application** for divisions' sales
- Automated manual forecasting and reporting processes which took days for each of the several divisions
- Carefully documented work-flow for team to create and deploy data applications in **Flask** and **IIS Server**
- Participated in **outreach and consulting** to aid other business functions and 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*

FOUNDER & FULL STACK DEVELOPER - STARTUP

*Jun - Aug 2018*

- Created a platform for writers to share & critique writing and form online writing circles
- Built a RESTful **Rails** application, utilizing **PostgreSQL** and **React.js** for front-end
- Worked as a **2 person** team through MacStartups, a start-up accelerator program,

## Skills

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**Programming** Python · NodeJS · Java · HTML/CSS/JavaScript · Bash

**Analytics** R/Shiny · SQL · Tensorflow · Jupyter · Plotly · Matlab

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

## Projects

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### Transit Bayes - ([sonkphan.com/project/transit-bayes/](http://sonkphan.com/project/transit-bayes/))

- A Bayesian analysis on the effect of transit accessibility to real estate price
- Wrangled transit GTFS data files and geocoded home location coordinates
- Work is an extension of **Pilgram, West** from Regional Science and Urban Economics

### Randomness in Sport

- Explores the idea of volatility of match outcomes across the major North American sports
- Learned about and implemented a variety of ranking and rating models in **R**
- Preparing for submission alongside Professor Vittorio Addona to various sports statistics conferences