# Soohyuck (Mike) **Cho**

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## RESEARCH INTEREST

Algorithms, Mathematical Computing, Artificial Intelligence (NLP), Visualization

## EDUCATION

**University of Illinois - Urbana-Champaign**                                                                   *Urbana, IL*
B.S. IN MATHEMATICS AND COMPUTER SCIENCE                                                          *Aug. 2017 - Dec. 2021*
- GPA: 3.91 / 4.00
- Dean's List - SP 18
- James Scholar Honors Program - FA 17

**University of Wisconsin - Oshkosh**                                                                           *Oshkosh, WI*
B.S. IN PHYSICS                                                                                              *Aug. 2015 - May. 2017*
- Transfer GPA: 4.00 / 4.00
- Dean's List - FA 15, SP 16, FA 16, SP 17

## EXPERIENCE

**Rescon AI**                                                                                                  *JHU @ Baltimore, MD*
INCOMING PRODUCT DEVELOPER INTERN                                                                       *Starting Jun. 2021 -*

**Narcotics Division, Supreme Prosecutors' Office**                                                            *Seoul, S.Korea*
DATA MANAGER                                                                                              *Jan. 2019 - Oct. 2020*
- Managed numerical data (dates, locations, costs, amounts, etc.), on illegally trafficked drugs in Korea and categorized it in terms of "retailed", "distributed", "exported", etc.
- Assisted visiting foreign narcotics liaisons in the 29th ADLOMICO (Anti-Drug Liaison Officials' Meeting for International Cooperation) and KOICA (Korea International Cooperation Agency) joint events.
- Translated various drug-related lab reports and publications including the UNODC's World Drug Report 2019 and 2020.

## RESEARCH

**Living Dictionary**                                                                                          *Urbana, IL*
ADVISED BY KEVIN C.C. CHANG (UIUC)                                                                      *May. 2021 -*
- Recently Started

**NLP in Computer Networks**                                                                                   *Urbana, IL*
ADVISED BY MATTHEW CAESAR (UIUC)                                                                        *May. 2021 -*
- Recently Started

## PROJECT

**Visualization of Discriminatory Behavior Across the U.S.**                                                   *Urbana, IL*
HACK ILLINOIS 2021                                                                                             *Apr. 2021*
- Led a team of six to research weekly occurrences of racially-motivated crimes across the US.
- Constructed a model using Gated Recurrent Units (GRU) and created a relevant interactive dashboard to display the predicted incidents vs the recorded incidents.

**Enhancing Minority Voice Recognition**                                                                       *Urbana, IL*
2021 ILLINI DATATHON                                                                                           *Feb. 2021*
- Led a team of four to investigate ways of enhancing voice recognition for minorities.
- Researched why modern voice assistants are biased against some ethnic minorities.
- Prototyped a CNN-based model through MFCC matrices, which was created from voice files of diverse ethnicity.
- Proposed the lack of variety in datasets as the primary reason why many modern voice assistants fail to support minorities.

### Score Analyzer

*Seoul, Korea*

FULL-STACK DEVELOPER

*Feb. 2019 - Sep. 2020*

- Led a team of three to devise auto-grading model for Korean CSAT.
- Incorporated polynomial interpolation to forecast exam scores based on previous performances.
- Categorized problems into groups and prototyped practice problem suggestive algorithm.

### Numerical Methods in Real World Applications

*Urbana, IL*

COURSE DEVELOPER

*Aug. 2018 - Dec. 2018*

- Generated creative problem sets for incoming Numerical Methods (CS 357) students.
- Extrapolated topics that students often struggle in and found ways to guide them through a step-by-step approach.

## HONORS & AWARDS

| 2021 | **3rd Place**, Voice Recognition and AI Category, Illini Datathon 2021 | *Urbana, IL* |
| 2015 | **1st Place**, UWO Undergraduate Math Competition | *Oshkosh, WI* |

## EXTRACURRICULAR ACTIVITY

### CODABLE Algorithm Team

*Urbana, IL*

TEAM LEADER & CORE MEMBER

*Jan. 2021 - present*

- Lead weekly meetings and compared each solution to find the most optimal solution to a given problem.
- Opened study sessions to prepare frequent coding interview questions.

### KITE (Korean International Transfer Entrance) HR Team

*Urbana, IL*

TEAM LEADER & CORE MEMBER

*Aug. 2017 - present*

- Lead weekly meetings to enhance work efficiency of all teams and share various ideas on overall organization managements.
- Opened regular mentoring workshops for all members to share school/career tips.
- Managed RSO fundraising and gained $400 net revenue.
- Prepared organized interview schedules and performed interviews during recruitment season.

### Center for Academic Resources

*Oshkosh, WI*

HEAD TUTOR & PROGRAM SUPERVISOR

*Aug. 2016 - May. 2017*

- Gained Expertise on efficient teaching techniques and enhanced student's ability to understand the material.
- Received a review score of 4.7 / 5 and positive comments from total of 25 students.
- Conducted 1 on 1 meeting with each students to diagnose the problems and struggles the students are having and gave specific solution on how to properly study the subject.
- Supervised other tutors and inculcated them on how to give an easily understandable explanation to their students.

## SKILLS

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|---|---|
| **Quantitative** | artificial intelligence, machine learning, visualization, numerical analysis, algorithms, proof-based mathematics |
| **Qualitative** | critical thinking, problem solving, research, communication, planning |
| **Programming** | Python, JAVA, C/C++, LaTeX, React, JavaScript, HTML5, CSS, MySQL, Verilog, Git |
| **Languages** | Korean (native), English (fluent), Japanese (intermediate) |