## **Andrew Joonhyung Park**

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#### **EDUCATION**

## Georgia Institute of Technology, Atlanta, GA (online)

Jan. 2023-Present

Master of Science in Analytics

• Concentration: Data Analytics Track

# $UCLA\ Luskin\ School\ of\ Public\ Affairs,\ Los\ Angeles,\ CA$

Sept. 2018-June 2020

Master of Public Policy

- GPA: 3.856
- Awards
  - o Department of Public Policy Fellowship
  - o Franklin D. Gilliam, Jr. Social Justice Award

## Purdue University, West Lafayette, IN

Aug. 2012-Dec. 2016

Bachelor of Science in Psychological Sciences

• Semester Honors: Spring and Fall 2016 (GPA 3.93, 4.0, respectively)

## Purdue in Germany, Immigration Health Study, Berlin, Germany

May 2016

• Study abroad program with a focus on the refugee crisis.

#### **PROGRAMMING SKILLS**

 CSS, HTML, JavaScript, Machine Learning, MongoDB, Natural Language Processing, Next.js, Node.js, Octave, PostgreSQL, Python, R, React.js, Redux, Scikit-learn, STATA, TensorFlow

#### PROFESSIONAL EXPERIENCES

## Freelance Software Engineer | Allgäu, Germany (remote)

Dec. 2023-Present

- Collaborating with another developer to create a full stack web application for a client running a security company.
- Integrating Express.js and Next.js for optimal performance in both the front and backend.
- Creating a system that allows our client to create subpages independently.

## 100Devs | Los Angeles, CA (Remote)

Jan. 2022-June 2023

## Software Engineer Apprentice - Leon Noel

- Collaborated with a team of developers to build modern and responsive web applications using best practices.
- Applied agile methodologies like SCRUM for project management.
- Built semantically structured full stack web applications (link, link, link).

## California Center for Population Research | Los Angeles, CA Jun. 2019-Aug 2019 Research Assistant – UCLA PhD Candidate in Economics, Tomás Guanziroli

- Created a web scraping script using R to gather information about an individual's academic and professional history to later match with data provided by the government (link).
- Utilized the script to compile hundreds of thousand data points on the population of interest.
- Conducted literature reviews regarding various definitions of the labor market and its relationship to globalization, immigration, and crisis.

# $Hanyang\ University\ |\ Seoul,\ South\ Korea$

Mar. 2017-June 2018

## Medical College Research Assistant - Dr. Ahn's Mental Health Research Lab

- Collected data regarding the effectiveness of the lab's robot tracking diagnostic test for children with ADHD in comparison to conventional diagnostic tools.
- Gathered data from the experiment to help publish a poster for the Korean Association of Child and Adolescent Psychiatry (*Robot motion tracking analysis in Attention-Deficit/Hyperactivity Disorder*).
- Outsourced the lab's experiment to two elementary schools for a month and a half each and conducted psychological screening using a series of questionnaires and tests.

#### **PROJECTS**

#### Airbnb Client Full Stack Web Application | 100Devs

Mar. 2023-June 2023

- Led a team of developers to create a full stack web application for a client running an Airbnb in McAllen, Texas.
- Handled admin authentication using Next Auth's Google authentication.
- Integrated Jodit's rich text editor for our client to create their own blog posts (link).

#### Portfolio Tracker – MERN Stack | 100Devs

Feb. 2023-June 2023

- Built a MERN stack web application using Redux and Material where users can browse various coins and record their buy and sell transaction to track the progress of their portfolio (link).
- Gathered and wrangled data from Coingecko's API to use in various graphs.
- Implemented a system to minimize the number of API calls where one user's request updates the data displayed on the web page for all users.

#### **Eventer - California – MERN Stack | 100Devs**

Oct. 2022-Jan. 2023

- Created a MERN stack application using Redux where users can create or attend events within California (link).
- Encrypted passwords using salting and hashing through bcryptjs and authenticated users using JWT.
- Formed references between models and used .populate() for a more relational-database-like structure.

### Convolutional Neural Network: Dog Breed Classifier – Python Oct. 2021-Mar. 2022

- Concatenated convolutional neural networks to predict a dog's breed from a class of 133 breeds (link).
- Efficiently trained the network using bottleneck features.
- Recorded the performance and efficiency of different optimization techniques and reached an accuracy of 89%.

## **Neural Network: Text Message Filter - Python**

July 2021-Sep. 2021

- Vectorized SMS text data using Scikit-learn and trained a neural network without the use of APIs to discern spam from ham messages (link).
- Programmed a gradient checking function to check for proper implementation of backpropagation.
- Achieved fast training time using minibatches and accomplished an accuracy above 98% with Adam optimization.

#### PROFESSIONAL DEVELOPMENTAL COURSES

#### **Convolution Neural Network**

Oct. 1, 2022

By DeepLearning.AI

Certificate Issued by Coursera

 Explored and created various computer vision architectures (e.g. ResNet-50, YOLO and U-Net) appropriate for tackling autonomous driving and object detection using TensorFlow in Python.

#### **Improving Deep Neural Networks:**

## Hyperparameter Tuning, Regularization, and Optimization

Aug. 29, 2022

By DeepLearning.AI

Certificate Issued by Coursera

• Analyzed how initialization, regularization, and other hyperparameters affect the bias and variance of neural networks using Python.

## **Natural Language Processing with Python**

Aug. 2, 2021

By instructor Jose Portilla

Certificate Issued by Udemy

- Categorized text using Support Vector Machine (SVM).
- Performed sentiment analysis using "SentimentIntensityAnalyzer."
- Pipelined simple processes such as vectorization and SVM.

## **Neural Networks and Deep Learning**

Aug. 13, 2021

By DeepLearning.AI

Certificate Issued by Coursera

• Delved deep into the idea of machine learning and built our own neural network in Python without the use of APIs.

#### Database Design and Basic SQL in PostgreSQL

July 20, 2021

By the University of Michigan (online)

Certificate Issued by Coursera

• Overviewed the basic concept of relational databases and practiced creating and calling in databases using DBeaver.

Machine Learning July 9, 2021

By Stanford (online)

Certificate Issued by Coursera

• Covered a wide range of topics in machine learning within a span of three months using Octave.

- Set up a function to perform forward and back propagation only using matrix multiplication.
- Condensed inputs' features into their essentials using Principal Component Analysis (PCA).
- Built algorithms using supervised learning.
- Assembled unsupervised learning algorithms such as k-nearest neighbors, anomaly detection, and SVM.

### Applied Plotting, Charting & Data Representation

June 29, 2021

By the University of Michigan (online)

Certificate Issued by Coursera

• Reviewed fundamental to intermediate charting in Python.

## **Introduction to Data Science in Python**

May 19, 2021

By the University of Michigan (online)

Certificate Issued by Coursera

• Recalled Python syntaxes.

## **Data Analysis with Python**

Apr. 25, 2021

By IBM

Certificate Issued by Coursera

• Received an overview of data analysis in Python.

#### **An Intuitive Introduction to Probability**

Apr. 16, 2021

By the University of Zurich (online)

Certificate Issued by Coursera

• Reexamined the basic concepts of probability.

### **RESEARCH ACTIVITIES**

## Capstone Project

June 2020

### UCLA Luskin School of Public Affairs | Los Angeles, CA

- Title: "Treatment of Opioid Use Disorder in Los Angeles County Jails: Increasing Access to Buprenorphine for Medication-Assisted Treatment" (link)
- Co-authors:
  - o Victoria Lewis, M.P.P, M.D. (vlewis@mednet.ucla.edu)
  - o Lynn Kysh, M.P.P (lkysh@chla.usc.edu)

## Purdue University | West Lafayette, IN

Aug. 2016-Dec. 2016

## Department of Psychology Research Assistant - Dr. Arriaga's Relations Research Lab

- Coded behavioral data collected from undergraduate couples to help identify variables that affect a relationship's longevity.
- Researched and presented other possible factors affecting a relationship's longevity on a monthly basis.

### Purdue University | West Lafayette, IN

Aug. 2016-Dec. 2016

## Department of Psychology Research Assistant – Dr. William's Ostracism Research Lab

- Implemented the game, Cyberball, on undergraduates to measure the effects of an individual's perceived ostracism before and after the game.
- Coded textual data for specific indicators of ostracism.

#### Purdue University | West Lafayette, IN

Aug. 2015-Dec. 2015

## Department of Psychology Research Assistant - Dr. Proctor's Cognition Research Lab

• Performed the Simon task on undergraduate students to compare their reaction times when a stimuli's location corresponded to their hand or feet versus when it did not.

#### **CONFERENCE PARTICIPATION**

# National Center for Mental Health | Seoul, South Korea Interpreter & Presenter

Mar. 2017

- Served as a bilingual interpreter for an international symposium in collaboration with the National Center for Mental Health (S. Korea), Institute of Mental Health (Singapore), and National Center of Neurology and Psychiatry (Japan).
- Translated and presented materials regarding crisis management through mental health services.

# Taewha Fountain House Conference | Seoul, South Korea Interpreter

Mar. 2017

• Served as a bilingual interpreter for Singapore's National Council of Social Service conference with Taewha Fountain House on the upcoming policy changes regarding the institutionalization of the mentally ill in South Korea.

#### **VOLUNTEER EXPERIENCE**

## Taewha Fountain House | Seoul, South Korea English Teacher

Jun. 2015-Aug. 2015

• Taught English to recovering psychiatric patients to assist their way back into society.

# Municipal Social Welfare Center | Seoul, South Korea Facility & Delivery Volunteer

Apr. 2014-June 2014

• Delivered food to impoverished elders, cleaned the kitchen, and took care of the facility in general.

#### **LANGUAGES**

• English, Korean, conversational Japanese