

# Araaish Paul

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## EDUCATION

### University of Illinois at Urbana-Champaign

May 2023

*Bachelor of Science in Computer Science*

Minor in Mathematics

Relevant Coursework:

- Data Structures, Introduction to Algorithms, Machine Learning, System Programming, Artificial Intelligence, Linear Algebra, Probability and Statistics

## RELEVANT EXPERIENCE

### Incoming Software Engineering Intern – Chicago, IL

January 2022 – May 2022

JP Morgan Chase

- Developing internal machine learning and data analysis tools for quantitatively assessing engineer user experiences across software development lifecycle.

### Software Engineering Intern – Greenwich, CT

June 2021 – August 2021

Interactive Brokers

- Designed an Apache Kafka messaging system to manage user account fees for higher throughput and scalability.
- Built standalone Java application to consume and process cancellation fees from Kafka topic.
- Integrate consumer and producer applications with existing codebase (Java, C++).

### Deep Learning Research Intern – Champaign, IL

January 2021 – December 2021

National Center for Supercomputing Applications

- Researched and implemented novel deep learning methods for medical image analysis.
- Developed models for successful classification of biomarkers for breast cancer risk profile.

## PROJECTS

**Data Visualization:** Performed latent semantic analysis and regression algorithms with visualization using pandas and seaborn to explore app usage and habits for Uber, Facebook Messenger and Spotify. (Python).

**Fungi Image Classification:** Trained convolutional neural network model using the Danish Svampe mushroom dataset to recognize and correctly label species of fungi. (Pytorch).

**Reinforcement Learning:** Implemented Q-learning algorithm to train agent to play a game of Snake. (Python).

**Portfolio Website:** Developed a personal website from scratch to showcase my projects (araaishpaul.com) (HTML/CSS)

## EXTRACURRICULAR ACTIVITIES

### SIG-AIDA – Champaign, IL

February 2021 – December 2021

Data Analytics Chair

- Mentor for the Artificial Intelligence Data Analytics club, a Special Interest Group of ACM
- Led design and execution of lessons on topics ranging from Data Visualization to Big Data

### Men's Illinois Rowing Team – Champaign, IL

September 2019 – May 2020

Men's Stroke Rower

- Participated in daily water and ergometer training. Competed in regional and national regattas.

## SKILLS

### Programming Languages

- Proficient: Python, C/C++, Java, HTML/CSS, unix shell; Familiar: SQL, JavaScript, C#
- Frameworks and Libraries: AWS, React Native, RESTful API's, Apache Kafka, Pytorch, TensorFlow, NumPy, matplotlib, sci-kit learn, pandas

### Languages

- English (Native), Hindi (Native), Spanish (Conversational), Punjabi (Conversational)

## CERTIFICATIONS & AWARDS

- Class of 1882 Debating Prize (Phillips Exeter Academy)
- Machine Learning (Andrew Ng, Coursera)