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2023 PhD Intern - Data Scientist

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Review

My Information

Have you previously worked for Salesforce as an employee or contractor, or are you a current Salesforce contractor? If "Yes" please provide at least one piece of information below, as accurately as possible. CURRENT EMPLOYEES: Please apply internally.

No

Name

Shantanu Ghosh

Address

5607 Baum Blvd Suite 500
Pittsburgh, PA 15206-3701
United States of America

Email

beingshantanu2406@gmail.com

Phone

+1 (352) 8713965 (Mobile)

My Experience

Work History (Optional)

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**Location**

Pittsburgh Pennsylvania

I currently work here

Yes

From

8/2021

Role Description

Advisor(s): Dr. Kayhan Batmanghelich

+ Research Area: Explainable AI; Causal Inference; Computer Vision; Medical Imaging.

+ Currently developing a novel algorithm to explain the prediction of a black box classifier with the help of network pruning using lottery ticket hypothesis. In this project, we aim to iteratively extract the explainable concepts from a black-box model using a neuro-symbolic explainable model. Also, we aim to detect the shortcut (biased) concepts from the black box and iteratively remove them from the features of the black box to make it robust.

+ Analyzed why pruning strategies using lottery ticket hypothesis works or fails in terms of explainability metrics – Concept activation vectors (TCAV) for global concepts and saliency maps like Grad-CAM, Integrated-Gradient for pixel attributions.

+ Developed an attention model to leverage the anatomical landmarks (weak labels) from Stanford RadGraph NLP pipeline to detect Pneumonia and Pneumothorax from MIMIC-CXR dataset. Also, designed the baseline using RetinaNet.

Work History (Optional) 2**Job Title**

Graduate Research Assistant

Company

Florida Institute for Cybersecurity Research

Location

Gainesville Florida

I currently work here

No

From To

2/2021 5/2022

Role Description

+ Advisor(s): Dr. Kevin Butler

+ Research Area: Causal Inference, Adversarial Machine Learning.

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[Search for Jobs](#)[Candidate Home](#)**Job Title**

Research Assistant

Company

University of Florida

Location

Gainesville Florida

I currently work here

No

From **To**

2/2020 2/2021

Role Description

- + Advisor(s): Dr. Mattia Prosperi, Dr. Jian Bian
- + Research Area: Causal Inference, Deep Learning.
- + Developed a novel deep learning framework to generate the counterfactual outcomes based on a treatment using a Generative Adversarial Network and information-theoretic regularization. Next, we utilized the counterfactual outcomes to estimate the individual treatment effect (ITE) using a novel deep learning network with doubly robust optimization for faster convergence.
- + Designed a novel algorithm using a Generative Adversarial Network to generate synthetic treated samples to remove imbalance within an observational dataset for Propensity score matching.
- + Developed a sparse autoencoder to reduce the dimensionality of the feature vectors of the patients to calculate the Propensity score in an efficient way to estimate the average treatment effect (ATE) of the treatment.

Work History (Optional) 4**Job Title**

Software Engineering professionals

Company

Lexmark International India Pvt Ltd

Location

Kolkata India

I currently work here

No

From **To**

10/2016 07/2019

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Work History (Optional) 5

Job Title

Associate

Company

Cognizant Technology Solutions India Pvt Ltd

Location

India

I currently work here

No

From To

03/2013 09/2016

Role Description

Worked as a senior developer to develop WCF web services in the Contract First Approach to provide a secure communication channel between the different In-house applications using Service Oriented Architecture (SOA), C# .Net 4.5, Oracle Client 11g. Trained C# to new recruits in Cognizant Academy.

Education (Required)

Education (Required) 1

School or University

University of Pittsburgh

Degree

PhD

Field of Study

Artificial Intelligence and Robotics

Overall Result (GPA)

4.00

From To (Actual or Expected)

2021 2026

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MS


Field of Study
Computer and Information Science

Overall Result (GPA)
3.88

From To (Actual or Expected)
2019 2021

Skills and Strengths (Optional)
Deep Learning (Suggested)
Machine Learning (Suggested)
Natural Language Processing (NLP) (Suggested)
Artificial Intelligence (AI) (Suggested)
Intelligent Systems (Suggested)
[+ More \(10\)](#)

Resume/CV



Shantanu_CV_PhD.pdf

209.78 KB

Relevant Websites (Optional)

Relevant Websites (Optional) 1
URL
<https://shantanu48114860.github.io/>

Social Network URIs

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What is your preferred geographic location?

Anywhere in the USA

I understand that upon employment, proof of legal right to work in the US and completion of an I-9 form will be required. *

Yes

Do you have the unrestricted right to work in the country to which you're applying? (You must answer "No" if you are on any visa or possess any government issued work authorization document that has an expiration date; you should answer "Yes" if you have DACA or TPS authorisation in the US) *

No

Will you now or could you in the future require sponsorship to obtain work authorization or to transfer or extend your current visa? (You must answer "Yes" if your current visa is tied to your spouse or partner's visa or if you are on a bridging visa or working holiday visa) *

Yes

Government Employment: In the last 5 years, have you been an employee of a U.S. federal, state, or local government, including a "special Government employee" (defined under 18 U.S.C. §202), a member of the U.S. Armed Services (including Reserve and Guard components), or an employee of a personal services contractor? *

No

Are you currently or have you in the past been debarred, suspended, proposed for debarment or declared ineligible for award of a contract by any federal agency? *

No

Are you a citizen, national or resident of any of the following countries and/or regions: Iran, Cuba, North Korea, Syria, or Crimea?

As a U.S. company that exports software and technology internationally, we must comply with U.S. export control laws in every country where we operate. The information provided will be used to determine whether we need to obtain an Export Control License for your employment if you are hired. *

Yes

Are you presently a citizen, national, or resident of Iran, Cuba, North Korea, or Syria? *

No

Do you have citizenship, nationality, or residency in Crimea? *

No

I acknowledge that I have read, reviewed and answered the above questions truthfully and accurately. I further understand, and agree, that any offer of employment I may receive from Salesforce is conditional on the truth of the above statements and that, in the event it is subsequently determined that any of the above is inaccurate, any such offer of employment can be rescinded and, in the event I have commenced employment, such employment will be terminated, to the extent permitted by applicable law. Please select "yes" if you acknowledge. *

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Application Questions 2 of 2

Expected Month of Graduation *

August

Expected Year of Graduation *

2026

Current School Location (Please spell out the city and abbreviate the state. Example: Ann Arbor, MI) *

Pittsburgh, PA

Our Futureforce roles are offered in the locations listed below. Please provide up to 3 preferred locations referenced on the job description (1 being your top choice). Preferred Location 1: *

San Francisco/Palo Alto, California

Preferred Location 2:

Austin, Texas

Preferred Location 3:

Bellevue/Seattle, Washington

Will you require sponsorship to continue or extend your current work authorization status? Sponsorship includes employer sponsorship, OPT/CPT renewal from your school (or spouse's school), J-1 sponsor extension. *

No

Do you intend to enroll in a Graduate program after obtaining your undergraduate degree?

Yes

Voluntary Disclosures

Equal Opportunity Employment

Gender

Male

Veterans

I am not a veteran.

Ethnicity

Asian or Indian Subcontinent (Not Hispanic or Latinx) (United States of America)

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Self Identify

Name

Shantanu Ghosh

Employee ID (if applicable)

No Response

Date

10/28/2022

Please check one of the boxes below:

No, I Don't Have A Disability, Or A History/Record Of Having A Disability

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