

# Sepehr Abdous

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## Education

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**Johns Hopkins University**  
**PhD**

School of Computer Science

**Baltimore**  
2019-Present

**Sharif University of Technology**  
**BSc, GPA: 17.06/20**

School of Computer Engineering

**Tehran**  
2014 - 2019

## Area of research

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My main field of research focuses on ways of measuring and resolving microsecond-scale congestion events, known as **microbursts**, in large datacenters. Currently, I am probing packet deflection, i.e., re-routing the packets forwarded to a congested port instead of dropping them, as a potential solution to microbursts.

In the past, I have spent some time probing **Named Data Networking (NDN)** as a new architecture proposed for the network layer that tries to resolve the limitations of IP-based architecture using names instead of IPs.

## Work Experience

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**CCC Intelligent Solutions Company**  
*Intern*

**2022**

*Chicago, US*

I designed and implemented a technique to increase the speed of data migrations between the company's remote storage servers.

**HPDS(High Performance Data Storage) Company**  
*Intern*

**2018**

*Tehran, Iran*

Responsible for automating the system update process and conducting system FIO tests

**Darmaneh Company**  
*Android and IOS Developer*

**2016-2018**

*Tehran, Iran*

Darmaneh was a startup which focused on creating a platform for online medical visits. I was responsible for developing the Android and IOS app using Java, Android Studio, and React Native.

## Skills

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- **Technical Skills:** Datacenter networking, Network simulation and hardware implementation
- **Programming Languages:** C, C++, Python, Java, Shell script
- **Tools:** Omnet++, Git, Latex, Ansible

## Publications

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### Papers.....

- Understanding the impact of the host networking elements on traffic bursts** 2023  
*Erfan Sharafzadeh, **Sepehr Abdous**, Soudeh Ghorbani*  
NSDI 2023
- Burst-tolerant Datacenter Networks with Vertigo** 2021  
***Sepehr Abdous\***, Erfan Sharafzadeh\*, Soudeh Ghorbani (\*Equal contribution)*  
CoNEXT 2021
- Stock price forecasting using machine learning with event detection on candlestick** 2018  
*Salman Marvasti, **Sepehr Abdous**, Negin Majidi*  
File available in Researchgate

### Posters.....

- Implementable selective deflection with Canary** 2023  
***Sepehr Abdous**, Erfan Sharafzadeh, Soudeh Ghorbani*  
NSDI 2023
- Vertigo: A Priority-aware Burst-tolerant Datacenter Fabric** 2021  
***Sepehr Abdous**, Erfan Sharafzadeh, Sougol Gheissi, Soudeh Ghorbani*  
16'th Coordinated Science Laboratory Student Conference (CSLSC)
- Valinor: Transport-Agnostic Packet Prioritization and Ordering at the Edge** 2021  
*Erfan Sharafzadeh, **Sepehr Abdous**, Sougol Gheissi, Soudeh Ghorbani*  
16'th Coordinated Science Laboratory Student Conference (CSLSC)

## Professional Service

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- Journal Reviewer for Computer Networks (2022-2023)
- Journal Reviewer for Journal of Network and Computer Applications (2022-2023)
- Journal Reviewer for Ad Hoc Networks (2022-2023)