Siamak Beikzadeh

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Education

- **University of Massachusetts Amherst** — Amherst, MA
  Ph.D. Computer Science ; GPA: 4/4 — *January 2021 - June 2026*
  Current Research: *Advanced Multimedia Networks, AR/VR*

- **Amirkabir University of Technology** — Tehran, Iran
  M. Sc. Computer Engineering ; GPA: 4/4 — *July 2018 - June 2020*
  Thesis title: *Scalable Blockchain-based method for improving accountability in software defined network*

- **Sharif University of Technology** — Tehran, Iran
  B. Sc. Computer Engineering ; Last two years GPA: 3.6/4 — *July 2012- June 2017*
  Thesis title: *Gaussian Three-Dimensional kernel SVM for Edge Detection Applications*

Skills Summary

- **Languages**: Python, C/C++,Swift, Matlab, JavaScript, SQL, JAVA
- **Frameworks**: Opencv, TensorFlow,Pytorch, Keras, Django, Flask, NodeJS
- **Tools**: Docker, GNS3,Netsim, GIT, MySQL, SQLite
- **Platforms**: Linux, Web, Windows, Raspberry,Jetson tx , Zodiac FX, AWS, CloudLab,FABRIC
- **Network**: Network Design, SDN/NFV, Performance Evaluation
- **Blockchain**: Ethereum , Hyperledger Fabric , TON , Multichain , IOTA
- **AR/VR**: Hololens 2 , Unity

Experience

- **Research on 5G and AETHER**
  Studying 5G and AETHER — *with Prof. Jim Kurose and Prof.Michael; Zink, UMass Amhesrt,Spring 2022*

- **Telecommunication Research Center**
  Researcher/Developer — *Jan 2019 - Dec 2020*
  - **startup for token-based Taxi payment**: Made a blockchain-based platform for Taxi Network
  - **Smart contract**: Writing different smart contracts.

- **Arman Pardaz Inc.**
  iOS developer (Part-time, Contractual) — *Jan 2014 - June 2014*
  - **Develop and maintain an iOS app for the company**: Turned their Website into an iOS app

Projects

- **Object Detection and Tracking in 360 Degree Videos**: We proposed a new method to detect and track object in the 360-degree videos. For this matter, we created our own 360- degree video dataset, and by leveraging of ROI technique and selecting a correct area of the image and then project it in 2D image we gain computational frugality as well as a better precision compared to previous works. (fall '2020)
- **SuperResolution-based Edge Assisted 360-Video Streaming System**: We explore a new three-tier architecture to handle the streaming of 360 videos to help reduce the bandwidth capacity on the core network of these cloud providers. (fall '2021)

Publications

- **Gaussian Three-Dimensional kernel SVM for Edge Detection Applications**: published in international conference in computer science and electrical engineering (December '2015)

Developing an Optimal 360-degree Video Streaming Using Multicasting for a Better QoE: Submitted/Under review (September 2023)

Honors and Awards

- 10 excellent students , in my master program - May, 2019
- Ranked 12th, in the national university entrance exam for Master degree, 2020
- Best Presentation, in international conference in computer science and electrical engineering, 2015

Research Experience

- **University of Massachusetts Amherst, Research Assistant** — Amherst, MA
  Focus on QoE and the goal of devisinge novel QoE
  metrics and evaluation methods to assess cybersickness in 360◦ video over the Internet .May 2021 - Present

- **University of Massachusetts Amherst, Research Assistant** — Amherst, MA
  Design and implementing network and streaming part of a virtual conference which is using AR/VR
  technologies for better QoE. may 2021 - Present

Teaching Experience

- (TA) Computer network course Amirkabir University of Technology,Spring - Spring, 2017 & Fall,2018
- Computer networks and security Lab instructor Amirkabir University of Technology,Spring - Spring, 2018 & Fall,2019,