NAZIR NAYAL

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EDUCATION

Koç University

September 2021 - August 2023

Master of Science, Computer Science.

Istanbul, Turkey

- Funded by KUIS AI Center and Newton Advanced Fellowship (Royal Society UK)
- Supervised by Fatma Güney (Koç University) and João F. Henriques (VGG, University of Oxford)

Koç University

September 2017 - June 2021

Bachelor of Science, Computer Engineering Senior.

Istanbul, Turkey

• Full scholarship funded by Al Ghurair Foundation (AGFE).

Al-Bassel High School for Superiors

September 2013 - June 2016

High School Diploma

Aleppo, Syria

• Ranked $5^{t\hat{h}}$ in Aleppo and among top 2% in Syria.

RESEARCH INTERESTS

• Deep Learning, Computer Vision, Open-World Learning, Out-of-Distribution Detection, Uncertainty Estimation, Robustness, Autonomous Driving.

EXPERIENCE

Koç University & İş Bankası Artificial Intelligence Center (KUIS AI) September 2021 - Present Research Fellow

Istanbul, Turkey

• Working on detection of rare events and unknown objects in Autonomous Driving scenarios.

Syrian Youth Empowerment (SYE)

July 2021 - Present

 $Grad\ Student\ Mentor$

Remote

• Mentoring and providing support to Syrian students applying for graduate degrees abroad.

Hospital on Mobile (now CareX.ai)

January 2021 - June 2021

AI Engineer

Remote

• Conducted research and developed AI models for vital signs prediction.

Invent Analytics

July 2020 - September 2020

Software Engineering Intern

Istanbul, Turkey

• Implemented a machine learning forecasting model based on supermarket products sales data.

Distributed Systems and Reliable Networks Research Laboratory (DISNET) March 2019 - January 2021

Research Intern

Istanbul, Turkey

• Implemented Proof of Concept for LightChain, and an augmented version of Skip Graph Data Structure.

Dapper Labs (Based in Vancouver, Canada)

August 2019 – December 2019

Software Engineering Intern

Remote

• Contributed to the implementation of the first version of the networking layer of Flow Blockchain.

PUBLICATIONS

- Y. Hassanzadeh-Nazarabadi, N. Nayal, S. Sameh Hamdan, Ö. Özkasap, and A. Küpçü, "A containerized proof-of-concept implementation of lightchain system," in ICBC. IEEE, 2020.
- Y. Hassanzadeh-Nazarabadi, **N. Nayal**, S. Sameh Hamdan, A. Utkan Şahin, Ö. Özkasap, and A. Küpçü, "Demo: Skip Graph Middleware Implementation", in SRDS 2020.
- Y. Hassanzadeh-Nazarabadi, M. Haji Ali, and N. Nayal. "Opera: Scalable Simulator for Distributed Systems" in INFOCOM 2021.

ACHIEVEMENTS

Al Ghurair Foundation for Education STEM Scholarship (AGFE)

September 2017 - 2021

Recipient

Istanbul, Turkey

• A merit-based award for highly achieving Arab students to pursue a degree in STEM.

Vehbi Koç Scholar Award

2018 - 2019 - 2020 - 2021

Award Recipient

Istanbul, Turkey

• Received this award for 4 consecutive years for maintaining a semester GPA of 3.5+.

IEEEXtreme 13.0 Programming Contest

October 2019

Online

Contestant

• Ranked 67^{th} globally and 2^{nd} among teams participating from Turkey.

Turkish Programming Contest (TPC)

September 2019

Contestant

Istanbul, Turkey

• Represented Koç University and ranked 12^{th} among teams participating from all over Turkey.

SKILLS

- **Technical**: C++, Python, Pytorch, Deep Learning, Agile Development, Algorithms & Data Structures, Competitive Programming, Data Analysis, Blockchain.
- Languages: Arabic (native), English (fluent), French (intermediate), Turkish (intermediate).

PROJECTS

For list of projects you may visit project page in my website.

EXTRACURRICULAR ACTIVITIES

Koc University Programming Championship (KUPC)

January 2020 - September 2020

Problem Setter & Chief Judge

Istanbul, Turkey

- KUPC is an ACM-ICPC style programming competition for Koc University students.
- Created and tested problems, and prepared competition system.

Koç University ACM Student Chapter (KUACM)

May 2019 - August 2020

Vice President

Istanbul, Turkey

• Managed and organized programs and activities carried out under that chapter's supervision.

Koç University Algorithms Program (KUAP)

January 2019 - September 2020

Founder & Coordinator & Instructor

Istanbul, Turkey

- Created a curriculum that covers basics of problem solving using algorithms and data structures.
- Led discussions and problem solving sessions demonstrating concepts and solutions to problems.

inzva Algorithmic Competition Winter Camp 2019

January 2019

Participant & Contestant

Istanbul, Turkey

• Ranked 1st in final day contest after a week long intensive training on algorithms and data structures.