

# Hakan Tugrul Otal

PhD Candidate and Research Assistant, University at Albany SUNY, New York, United States  
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## RESEARCH INTERESTS

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Artificial Intelligence, Machine Learning, Graph Neural Networks, Large Language Models, Computer Networks, Cybersecurity

## EDUCATION

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**University at Albany, SUNY**, New York, United States 08-2023 — Present  
Ph.D. in Information Science  
Data Analytics (Major) - Cybersecurity (Minor)

**Istanbul Technical University**, Istanbul, Turkey 09-2018 — 06-2023  
B.S. in Computer Science Cumulative GPA: 3.5/4.0

## EXPERIENCE

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**University at Albany, SUNY** New York, United States  
*Research Assistant* 08-2023 — Present

- Doing research at "AI in Complex Systems Lab" under the guidance of Dr. M. Abdullah Canbaz

**Parieta AI** Istanbul, Turkey  
*Software Engineer* 01-2023 — 08-2023

- Designed and developed user interface (UI) of the web application.
- Created and connected Nest.js backend services and MongoDB databases.
- Generated AI pipelines and integrated to the application.
- Setup AWS and Docker container infrastructures to manage the projects.

**Deka Technology** Istanbul, Turkey  
*Software Engineer* 07-2022 — 12-2022

- Developed new API endpoints for many applications of AnadoluEfes.
- Connected SAP services to backend services through customized integration layer.
- Worked with 100+ microservices and used technologies like Jenkins, Openshift, Elastic, Redis, Quarkus, Apache Camel and Keycloak to manage them.

**PoiLabs** Istanbul, Turkey  
*Software Engineer Intern* 09-2021 — 10-2021

- Developed backend services of an mobile application for visually impaired people.
- Tested and restructured an application's mobile API with more dynamic and efficient ways.
- Used Bitbucket as VCS and observed how to work with many people on the same project effectively.

## PROJECTS & PUBLICATIONS

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**Trust Based Data Storage for E-Health Systems in IoT** [Not Published]  
**Distributed Network Load Profile Generation** [Graduation Project]  
**Harnessing Deep Learning and Satellite Imagery for Post-Buyout Land Cover Mapping** [IntelliSys 2024]  
**LLM-Assisted Crisis Management: Building Advanced LLM Platforms for Effective Emergency Response and Public Collaboration** [IEEE CAI 2024]

## SERVICES & AWARDS

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**University at Albany, SUNY** Spring 2024  
Teaching Assistant for 'CINF135: Concepts of AI'

**IEEE** 09-2023 — Present  
Student Member

**IEEE INFOCOM 2024** 10-2023 — Present  
TPC - Reviewer

**IEEE Communications & Network Security 2023** 10-2023  
Student Travel Grant

## ENGLISH TESTS

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IELTS Academic: 7.5 / 9.0 (overall score)

10-2022

## SELECTED COURSES

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### PhD's Courses

- Quantitative Methods
- Statistics with R
- Advanced Python
- Networking
- Applied Machine Learning

### Bachelor's Courses

- Learn from Data
- Analysis of Algorithms I & II
- Computer Vision
- Artificial Intelligence
- Computer Security
- Computer Communication Systems

### Additional Courses

- Deep Learning for Computer Vision, University of Colorado Boulder, 02-2022

## SKILLS

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- **Programming:** Python, C/C++, Javascript/Typescript
- **AI Frameworks:** Pytorch, Tensorflow, Sklearn
- **Data Visualization and Manipulation:** Matplotlib, Seaborn, Numpy, Pandas

## REFERENCES

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### Dr. M Abdullah Canbaz

*Assistant Professor, Department of Information Sciences and Technology, University at Albany SUNY, NY, USA*

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Scholar Profile: [albany.edu/cehc/faculty/m-abdullah-canbaz](http://albany.edu/cehc/faculty/m-abdullah-canbaz)

### Dr. Tolga Ovatman

*Associate Professor, Faculty of Computer and Informatics Engineering, Istanbul Technical University, Istanbul, Turkey*

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