

# Emir Ceyani

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## Education

- Ph.D. in Electrical & Computer Engineering** Jan 2021 – Present  
University of Southern California | Los Angeles, CA  
Advisor: Prof. Salman Avestimehr
- M.Sc. in Electrical & Electronics Engineering** 2018 – 2020  
Bilkent University | Ankara, TR  
Thesis Title: Spatio-temporal Forecasting Over Graphs with Deep Learning  
Advisor: Dr. Salih Ergut
- B.Sc. in Electrical & Electronics Engineering** 2013 – 2018  
Bilkent University | Ankara, TR

## Publications

Google Scholar ID: [VzqEN78AAAAJ](https://scholar.google.com/citations?user=VzqEN78AAAAJ)

### 2021

- SpreadGNN: Serverless Multi-task Federated Learning for Graph Neural Networks* [code] [slide]  
C. He\*, E. Ceyani\*, K. and Balasubramanian\*, M. Annavaram, and S. Avestimehr  
Accepted to FL-ICML'21 & DLG-KDD'21 workshops .Three co-1st authors have equal contribution (alphabetical order) 2021
- FedGraphNN: A Federated Learning System and Benchmark for Graph Neural Networks* [code] [slide]  
C. He\*, K. Balasubramanian\*, E. Ceyani\*, Y. Rong, P. Zhao, J. Huang, M. Annavaram, and S. Avestimehr  
Accepted to ICLR - DPML 2021 & MLSys - GNNSys'21 workshops (equal contribution) 2021

### 2020

- Spatio-temporal forecasting over graphs with deep learning*  
E. Ceyani  
Bilkent 2020

### 2018

- A highly efficient recurrent neural network architecture for data regression*  
T. Ergen and E. Ceyani  
26th Signal Processing and Communications Applications Conference, SIU 2018, Izmir, Turkey 2018

## Industry Experience

**5G VATS R&D Engineer** | Turkcell Technology | Istanbul, TR Oct 2018 - Dec 2020  
Developed deep learning algorithms for forecasting spatio-temporal grid and graph-structured mobile traffic series collected from 4G/5G base stations under non-stationary environments.

## Honors & Awards

Accepted to LOGML Summer School 2021  
Deep|Bayes & PRAIRIE AI ML summer schools. 2019  
Travel & Accommodation Grant  
5G & Beyond Graduate Support Program and Bilkent Graduate Scholarship 2018 - 2020  
Funded during M.Sc. studies by Bilkent University and ICT(Awarded for the first time).  
Research Excellence Award 2018  
Awarded by Bilkent University Electrical and Electronics Engineering Department.

## Invited Talks

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OREDATA 2021  
MIT - FL Reading Group 2021

## Professional Activities

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Reviewing: IEEE TNNLS, TBDCS 2019 -  
Teaching Assistant at ProbAI 2021 Summer School 2021

## Repositories

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FedML-AI/FedML | ★703 | *FedML - A Research-oriented Federated Learning Library* 2020  
FedML-AI/FedGraphNN | ★51 | *FedGraphNN - A Research-oriented Federated Learning Library for Graph Neural Networks* 2021  
FedML-AI/SpreadGNN | ★3 | *SpreadGNN - Serverless Multi-Task Federated Learning for Graph Neural Networks* 2021

## Skills

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Languages C, C++, Java, MATLAB, Julia, Python  
Frameworks JAX, NumPy, Pandas, PyTorch, Pyro, SciPy, Keras  
Tools Linux, vim, git, tmux, zsh