

# Sahin Olut

Github: <https://github.com/norveclibalikei>

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## EDUCATION

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- **University of North Carolina at Chapel Hill** North Carolina, USA  
*PhD in Computer Science* Sep. 2019 – Present
- **Istanbul Technical University** Istanbul, Turkey  
*BSc in Computer Engineering and Science; GPA: 3.27 (Top %10 of class)* Sep. 2014 – June 2019

## EXPERIENCE

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- **Kairos Future & Dcipher Analytics** Remotely Stockholm, Sweden  
*Data Scientist & Machine Learning Engineer* July 2018 - Present
  - Developed machine learning and data visualization platform using **Apache Spark, Python** for making AI-supported analytics available to experts without data science or programming experience.
  - Built a machine learning pipeline to diagnose dental x-ray images, which **outperforms human-level**.
  - Visualized thousands of fetched photos from Instagram to show the relations between them and found the hot-spots across the Scandinavia.
  - Analyzed the workflows and optimized the Spark configurations accordingly.
  - Worked on the design and implementation of user and management microservices.
- **ITU Vision Lab.** Istanbul, Turkey  
*Undergraduate Research Member* Aug. 2017 - Present
  - Worked with GANs for medical image generation, I also studied about various tasks ranging from medical image segmentation to enhancing quality of satellite images. Additionally, I worked on development of some internal tools of the lab.
  - **Teaching Assistantship:** Voluntarily prepared assignments and helped the creation of the syllabus for the first-time offered **graduate-level** Deep Learning course which is offered by our lab. At the end of the course, the students built a fully featured deep learning framework.
  - **National Liver Segmentation Hackathon:** In April 2018, Dokuz Eylul University held a Grand Challenge about liver segmentation in MRI images. Ranked **1st** place.
  - **Best graduation project award:** Awarded by ITU Computer Engineering Department.
  - **Best research project award:** Awarded by TUBITAK (Council of Science) for the best project in the Istanbul region.

## PUBLICATIONS

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- **Published:**
  - **Sahin Olut**, Yusuf Huseyin Sahin, Ugur Demir, Gozde Unal. (2018) "Generative Adversarial Training for MRA Image Synthesis Using Multi-contrast MRI". In: **PRedictive Intelligence in MEdicine. PRIME 2018 (MICCAI 2018 Workshop)**. Lecture Notes in Computer Science, vol 11121. Springer, Cham
  - **Sahin Olut**, Yusuf Huseyin Sahin, Ugur Demir, Gozde Unal. "Generative Adversarial Training for MRA Image Synthesis Using Multi-Contrast MRI". International Conference on Medical Imaging with Deep Learning (MIDL), Amsterdam, NL. July 2018. arXiv:1804.04366 – **Awarded with CIFAR Student Travel Grant**
- **On progress/in review:**
  - Emre Kavur, **Sahin Olut**, et al. "Comparison of Semi-Automatic and Deep Learning Based Automatic Methods for Liver Segmentation in Living Liver Transplant Donors". (Output of the challenge: National Liver Segmentation Hackathon) **Submitted to Diagnostic and Interventional Radiology**
  - **Sahin Olut**, Yusuf Huseyin Sahin, Ugur Demir, Gozde Unal. "MRA-GAN: Magnetic Resonance Angiography Synthesis using Generative Adversarial Networks". **Submitted to IEEE Journal of Biomedical and Health Informatics**

## PROJECTS

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- **Logger as a Service** A JavaScript library that seamlessly integrates your project and collects the app logs which can be monitored and analyzed. Tech stack: GoLang, Elasticsearch, JavaScript, RabbitMQ, Grafana, React.js, Redis.
- **Zuber Telegram Bot (Freelance)** Allows touring employees of Zuber ([zuberlezzetler.com/en/](https://zuberlezzetler.com/en/)) to take photos and gather other information about grocery shops where Zuber products are sold. The bot has **250+ daily active users**.
- **ITU Enrollment Tracker** Allows students to be notified when there are seats available in a class. It is a chat bot integrated to Facebook Messenger API. Many students (**500+ in 2 days after release**) have used and benefited from app. It was a holiday project but it eventually gained vast attention from students.
- **ITUnder** Peer finder app for study groups. Tech stack: React.js, Python, Flask, PostgreSQL, NodeJS.

## HONORS & AWARDS & TALKS

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- Did an introductory workshop about synthetic data generation in DeepCon'18 organized by Deep Learning Turkey.
- **CIFAR Travel Grant:** Granted by CIFAR for the work (Generative Adversarial Training for MRA Image Synthesis Using Multi-Contrast MRI) presented in MIDL 2018.
- **IKU Code Night:** Ranked **2nd** place. It is a 24 hours long online competitive programming challenge.
- **Getir-BiTaksi Hackathon 2018:** Ranked **3rd** place with an app called 'Gotur'. Used Redis, NodeJS, MongoDB.

## SKILLS

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- **Programming:** Python, JavaScript, C++
- **Environments and Frameworks:** PyTorch, Apache Spark, NodeJS, L<sup>A</sup>T<sub>E</sub>X