Sherzod **Kariev**

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LeetCode 500+ Problems Solved (https://leetcode.com/sherzod99)

Education

University of South Florida — *Tampa, FL*

M.S. in Computer Science | Major GPA 3.75 | Cumulative GPA 3.75 — *Jan 2021 - Dec 2021*

- **Research Interests:** Machine (Deep) Learning, Natural Language Processing and Computer Vision

University of South Florida — *Tampa, FL*

B.S. in Computer Science | Major GPA 3.95 | Cumulative GPA 3.81 — *Aug 2017 - Dec 2020*

Skills

- **Languages:** Python, JavaScript, Java, C++, Swift, Bash
- **Libraries:** Tensorflow, Keras, PyTorch, OpenCV, NLTK, YOLO, GCP
- **Tools and Frameworks:** Flask, Android Studio, React, Git, Selenium, TestNG, Docker, Kubernetes, REST

Experience

Helix Technology Group Inc. — *Miami, FL*

Software Engineer Intern — *Jul 2020 - Dec 2020*

- Developed an application to do the detection, tracking and counting of people and cars depending on their direction using YOLO
- Designed a social engineering attack classifier on emails by checking for spam, phishing attempts, malware, grammar and spelling mistakes
- Implemented an open-domain dialogue AI chatbot to interact with user in a conversational manner using speech

Social Computing Lab (Dr. Sriram Chellappan) — *Tampa, FL*

Research Assistant — *May 2019 - Present*

- Trained an object detection model to detect mosquito populated spots from drone videos using Faster R-CNN library, Tensorflow and Keras [3]
- Developed an IOS and Android applications for contact tracing of COVID-19 infected people using BLE with Swift and Kotlin [2]
- Developed a cross-platform web application with server-side Mask R-CNN image segmentation model for masking anatomy of mosquitoes [4]

Involvement | Projects

Duv-Duv Gap News Ranking System | Winner of HackGT NewsQ Challenge — *Atlanta, GA (Virtual)*

Hacker — *Oct 2020*

- Built a language-agnostic news ranking system for Uzbek language to predict news engagement rate based on the metadata of the article
- Worked in a team of 4 on data scraping of 24000 news articles, NLP model training and web interface design over the 36-hour hackathon

Smart Detector | Nielsen/USF CSE Project — *Tampa, FL*

ML Engineer — *Aug 2020 - Dec 2020*

- Integrated custom wake word triggering engine with Raspberry PI to do real-time capturing of utterances from Alexa and Siri smart speakers
- Trained an intent classification model using NLP Transformers while collaborating with other team members and engineers from Nielsen

Turkic Interlingua — *Global*

Data Scientist | Project Leader | Co-Founder — *Sep 2020 - Present*

- Managed a team of 5+ engineers on collecting/filtering datasets and designing NLP models for automatic speech recognition task
- Trained the team on the usages of different NLP Architectures, libraries and cloud services via workshops and demos

Publications & Patents

1. Rahul Paul, **Sherzod Kariev**, Dmitry Cherezov, Matthew Schabath, Robert Gillies, Lawrence Hall, Dmitry Goldgof. Deep radiomics: deep learning on radiomics texture images (2020), in review
2. Jean-François Biasse, Sriram Chelleppan, **Sherzod Kariev**, Noyem Khan, Lynette Menezes, Efe Ulas Seyitoglu, Charurut Somboonwit, and Attila A. Yavuz. "Trace-Σ: a privacy-preserving contact tracing app", Cryptology ePrint Archive, Report 2020/792.
3. Mona Minakshi, Tanvir Bhuiyan, **Sherzod Kariev**, Martha Kaddumukasa, Denis Loum, Nathanael B. Stanley, Sriram Chellappan, Peace Habomugisha, David W. Oguttu and Benjamin G. Jacob . *"High-accuracy detection of malaria mosquito habitats using drone-based multispectral imagery and Artificial Intelligence (AI) algorithms in an agro-village peri-urban pastureland intervention site (Akonyibedo) in Unyama Sub–County, Gulu District, Northern Uganda."* Journal of Public Health and Epidemiology 12, no. 3 (2020): 202-217
4. Mona Minakshi, Pratool Bharti, Tanvir Bhuiyan, **Sherzod Kariev** and Sriram Chellappan. *"A Framework based on Deep Neural Networks to Extract Anatomy of Mosquitoes from Images"*, Jul 2020, Sci Rep 10, 13059.
5. Chellappan, Mirzakhalov, J.,and **Kariev Sh.**, University of South Florida, 2020. Ensuring Integrity of Email Content during Forwarding. USF Ref. No. 19B151