

Yavuz Koroglu

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Born: July 29, 1990—Istanbul, Turkey

Nationality: Turkish

Gender: Male

Work Experience

Ongoing	<i>Project Manager</i> @ Trailblu Inc., Teknopark, Bogazici University, since Sep 15, 2020
2019-2020	<i>Research Assistant</i> @ Computer Engineering, Bogazici University, from Oct 1, 2019 to Sep 14, 2020
2018-2019	<i>PhD Researcher</i> @ Institute of Software Technology, TU Graz, from Oct 1, 2018 to Oct 1, 2019
2014-2018	<i>Teaching Assistant</i> @ Computer Engineering, Bogazici University, from Jun 27, 2014 to Oct 1, 2018

Areas of Specialization

Automated Test Generation; Mobile Application Testing; Bug Prediction; Machine Learning.

Education

Ongoing	PHD in Computer Engineering, Bogazici University
2016	MSc in Computer Engineering, Bogazici University
2014	BSc in Computer Engineering, Bogazici University

Certificates and Awards

2018	Best Paper Award, Ulusal Yazılım Mühendisliği Sempozyumu (UYMS).
2016	Certificate of Participation, International Summer School of Marktoberdorf.
2015	Üstün Başarı Ödülü Sertifikası, Ulusal Yazılım Mühendisliği Sempozyumu (UYMS).

Publications

INTERNATIONAL JOURNALS

2020	Yavuz Koroglu and Alper Sen, "Functional Test Generation from UI Test Scenarios using Reinforcement Learning for Android Applications", <i>Software Testing, Verification, and Reliability. Special Issue: New Generations of UI Testing</i>
2019	Mustafa Efendioglu, Alper Sen, and Yavuz Koroglu, "Bug Prediction of SystemC Models Using Machine Learning", <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, Vol 38, Issue 3.</i>

INTERNATIONAL CONFERENCES AND WORKSHOPS

- 2019 Yavuz Koroglu and Franz Wotawa, "Fully Automated Compiler Testing of a Reasoning Engine via Mutated Grammar Fuzzing", *14th IEEE/ACM International Workshop on Automation of Software Test (AST) in Conjunction with ICSE*
- 2018 Yavuz Koroglu and Alper Sen, "TCM: Test Case Mutation to Improve Crash Detection in Android", *International Conference on Fundamental Approaches to Software Engineering (FASE)*
- 2018 Yavuz Koroglu, Alper Sen, Ozlem Muslu, Yunus Mete, Ceyda Ulker, Tolga Tanriverdi, and Yunus Donmez, "QBE: QLearning-Based Exploration of Android Applications", *IEEE International Conference on Software Testing, Validation, and Verification (ICST)*
- 2016 Yavuz Koroglu and Alper Sen, "Design of a Modified Concolic Testing Algorithm with Smaller Constraints", *International Workshop on Constraints in Software Testing, Verification and Analysis (CSTVA)*
- 2016 Yavuz Koroglu and Alper Sen, "Defect Prediction on a Legacy Industrial Software: A Case Study on Software with Few Defects", *International Workshop on Conducting Empirical Studies in Industry (CESI)*.

INTERNATIONAL PREPRINTS

- 2019 Yavuz Koroglu and Alper Sen, "Reinforcement Learning-Driven Test Generation for Android GUI Applications using Formal Specifications", *arXiv/1911.05403*.

NATIONAL CONFERENCES

- 2020 Yavuz Koroglu and Alper Sen, "Büyük-Ölçekli bir Android Uygulaması için Otomatik Fonksiyonel Test Yaratım Deneyimleri", *Ulusal Yazılım Mühendisliği Sempozyumu (UYMS)*
- 2020 Ahmet Gul and Yavuz Koroglu and Alper Sen, "Akıllı Sözleşmeler İçin Makine Öğrenmesi Tabanlı Hata Tahmin Aracı", *Ulusal Yazılım Mühendisliği Sempozyumu (UYMS)*
- 2018 Yavuz Koroglu and Alper Sen, "Android Uygulamaları için Kötü Huylu Test Yaratımı", *Ulusal Yazılım Mühendisliği Sempozyumu (UYMS)*
- 2017 Yavuz Koroglu, Mustafa Efendioglu, and Alper Sen, "Android'de Çökme Tespitini İyileştirme Amaçlı Model-Tabanlı ve Rastgele Karma Yöntem", *Ulusal Yazılım Mühendisliği Sempozyumu (UYMS) Yazılım Test Mühendisliği Alt Dalı (YTM)*
- 2015 Yavuz Koroglu and Alper Sen, "Büyüyen Kısmi Yol Kısıtlarıyla Konkolik Test", *Ulusal Yazılım Mühendisliği Sempozyumu (UYMS)*.

WORK IN PROGRESS

- Ongoing Yavuz Koroglu and Alper Sen, "Fast Test Generation for Multiple Test Scenarios in Android with Experience Replay"

TA Courses

- Digital Design
- Computer Organization