Alperen Keles

☑ akeles@umd.edu **G** Google Scholar alpaylan in Alperen Keles Education Doctorate of Philosophy - Computer Science 2021 - 2026(Expected) University of Maryland, College Park Maryland, USA 2017 - 2021 Bachelor of Engineering - Computer Engineering Middle East Technical University Ankara, Turkey GPA: 3.66/4.0 (top 5% in class of 229) **Publications** Deeper Properties for Programmable Testing (under review) PLDI 2025 Alperen Keles, Justin Frank, Ceren Mert, Harrison Goldstein, Leonidas Lampropoulos Tail: A Typed and Structured Document Editor POPL 2024 SRC Alperen Keles Etna: An Evaluation Platform for Property-Based Testing (Experience Report) **ICFP 2023** Jessica Shi, Alperen Keles, Harrison Goldstein, Benjamin C. Pierce, Leonidas Lampropoulos **Protocol Verification Language** CGO 2020 SRC Alperen Keles, Ozan Akin, Ozan Sazak, Umut Sahin **DroPPPP: A P4 Approach to Mitigating DoS Attacks in SDN WISA 2019** Goksel Simsek, Hakan Bostan, Alper Kaan Sarica, Egemen Sarikaya, Alperen Keles, Pelin Angin, Hande Alemdar, Ertan Onur Work Experience University of Maryland - PLUM Maryland, USA - Graduate Research Assistant Aug 2022 - Present Working with Leonidas Lampropoulos on the intersection of Property Based Testing, Fuzzing, and Formal Verification. **Amazon Web Services** New York, USA - Applied Science Intern - Privacy Engineering May 2023 - Aug 2023 Developed a dataflow analysis method for a state machine based DSL. (Python, Java, Dataflow Analysis, Symbolic Execution, Abstract Interpretation) - Applied Science Intern - Privacy Engineering May 2022 - Aug 2022 Implemented of a novel encryption scheme on top of the AWS Encryption SDK. (Python, Dafny) University of Maryland - MC2 Maryland, USA(Remote) - Research Intern Jul 2020 - Dec 2020 (Program Synthesis, Automatic Exploit Generation) Havelsan Ankara, Turkey - Part-Time Engineer Jul 2020 - Jul 2021 Designed and implemented a novel bandwidth detection and optimization algorithm for a video-conference application. (Javascript, React) **Emproof** Bochum, Germany Jun 2019 - Sept 2019 - Embedded Security Engineering Intern Worked on translation validation of binary obfuscation techniques. (C++, Z3 SMT Solver, ARM Assembly, Symbolic Execution) **Community Service** extendr: Frictionless bindings for R and Rust 10.21105/joss.06394 Jul 2024 - Reviewer afetbilgi.com afetbilgi.com - Founder Feb 2023 - Jul 2023 **ICFP Programming Contest**

Sep 2022 - Jul 2023

Jun 2022 - Sep 2022

- Co-Organizer of 26th Annual ICFP Programming Contest

- Organizer of 25th Annual ICFP Programming Contest