

# Abdullah Giray Yaglikci

## Computer Architect and Research Assistant at SAFARI Research Group at ETH Zurich

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Up-to-date version of CV is available at <https://agyaglikci.github.io/online resume>

I am a Ph.D. candidate in the Safari Research Group at ETH Zürich, working with Prof. Onur Mutlu. My current broader research interests are in computer architecture, systems, and hardware security with a special focus on DRAM robustness and performance. In particular, my PhD research focuses on understanding and solving the RowHammer vulnerability. I have published several works on this topic in major venues such as HPCA, MICRO, DSN, and ISCA. One of these works, BlockHammer, was named as a finalist by Intel in 2021 for the Intel Hardware Security Academic Award. My RowHammer research is in part supported by Google and the Microsoft Swiss Joint Research Center

## Professional Experience

1600 – 1601

### Twelfth Night

Viola finds herself shipwrecked in Illyria and, assuming that her brother Sebastian has died in the wreck, disguises herself as a man to gain a position in Duke Orsino's court. Orsino sends Viola (whom he knows as Cesario) to deliver a message to his love, Olivia. Olivia, however, dislikes the Duke. She falls in love with Viola, who she thinks is a man. Eventually, Viola's brother Sebastian, who in fact was unharmed in the wreck, reappears. At a critical moment, Viola's true identity is revealed when members of the court notice the similarities between her and Sebastian. Olivia quickly falls in love with Sebastian, and Viola confesses her love for the Duke.

comedy love

1595–1596, with a possible early draft written in 1591

### The Tragedy of Romeo and Juliet

In Verona, Italy, two families, the Montagues and the Capulets, are in the midst of a bloody feud. Romeo, a Montague, and Juliet, a Capulet, fall in love and struggle to maintain their relationship in the face of familial hatred. After Romeo kills Juliet's cousin Tybalt in a fit of passion, things fall apart. Both lovers eventually commit suicide within minutes of each other, and the feuding families make peace over their recent grief.

tragedy death love

## Education

King Edward VI Grammar School in Stratford-upon-Avon [1571 - 1578]

## Selected Publications

### BlockHammer: Preventing RowHammer at Low Cost by Blacklisting Rapidly-Accessed DRAM Rows

A. Giray Yaglikci, Minesh Patel, Jeremie S. Kim, Roknoddin Azizi, Ataberk Olgun, Lois Orosa, Hasan Hassan, Jisung Park, Konstantinos Kanellopoulos, Taha Shahroodi, Saugata Ghose, and Onur Mutlu, "BlockHammer: Preventing RowHammer at Low Cost by Blacklisting Rapidly-Accessed DRAM Rows", *Proceedings of the 2021 ACM SIGPLAN Conference on Programming Language Design and Implementation*, 2021.

In this paper, we show that it is possible to efficiently and scalably prevent RowHammer bit-flips without knowledge of or modification to DRAM internals. To this end, we introduce BlockHammer, a low-cost, effective, and easy-to-adopt RowHammer mitigation mechanism that prevents all RowHammer bit-flips while overcoming the two key challenges: scalability with worsening RowHammer vulnerability and compatibility with commodity DRAM chips. BlockHammer selectively throttles memory accesses that may cause RowHammer bit-flips. To our knowledge, this is the first work that prevents RowHammer bit-flips efficiently and scalably without knowledge of or modifications to DRAM internals.

[Full paper](#) [Full Talk Video](#) [Full Talk Slides \(pptx\)](#) [Full Talk Slides \(pdf\)](#) [Live Talk Video](#) [Live Talk Slides \(pptx\)](#) [Live Talk Slides \(pdf\)](#)

rowhammer defense throttling memory dram memory controller hardware

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