# CANER DERİCİ

## Computer Science PhD Candidate

@ cderici@indiana.edu    ⚲ IN, USA    ⚯ cderici.github.io    ⎔ github.com/cderici    Extended version (CV): cderici.github.io/cv.html

## SELECTED PROJECTS

**Pycket: A tracing JIT compiler for self-hosting Racket[1]**

- I am the main developer and maintainer. Made Racket bootstrap itself on it, i.e. achieved a full Racket implementation. Developed the run-time primitives and data structures (hash tables, structs etc.) on RPython framework.

**Rax: A full-stack nanopass compiler from a small subset of Racket to x86_64 assembly [2]**

- Started for fun, turned into a school project. Two people collaboration. I built and tested all the passes (e.g. closure conversion, register allocation, code-gen, etc.).

**HazirCevap (Witty): A closed domain question answering system for high school students**

- I lead the research and development, 3 faculty members and 4 grad students were involved. This was my MSc thesis work, so I worked on pretty much everything about it. (see Publications)

**FARS: Functional Automated Reasoning System[3]**

- A resolution-refutation style automated theorem prover. I developed it for fun at first, then I turned it into a school project. Written all in Racket by myself.

**Sessizliğe Oku (Read to Silence): An application to teach people with hearing disability how to read**

- I was the main developer. 2 faculties from Linguistics, 1 from CS, and 2 RAs were involved. It aimed to develop a stable framework on which the Turkish grammar lectures and exercises for deaf people can easily be provided. Collaborated with the linguists to implement the web & mobile app that's designed specifically for deaf people.

## PUBLICATIONS

- Flatt M., Derici C. Dybvig R. K., Keep A. et. al. "Rebuilding racket on chez scheme (experience report)", ICFP'19
- Derici C. et. al. "A closed-domain question answering framework using reliable resources to assist students" Natural Language Engineering'2018
- Derici C. et. al. "Question analysisfor a closed domain question answering system", CICLING'15
- Derici C. et. al. "Rule-basedfocus extraction in Turkish question answering systems", SIU'14
- Başar R. E., Derici C., and Şenol Ç. "World With Web: A compiler from world applications to JavaScript". Technical Report, Scheme and Functional Programming Workshop'09

## SPOKEN LANGUAGES

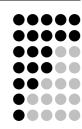**Turkish (native)**    ●●●●●
**English (lived in US since 2015)**    ●●●●○

---

[1] http://www.github.com/pycket/pycket
[2] https://github.com/cderici/rax
[3] https://github.com/cderici/FARS

## EDUCATION

- **PhD** (Grad. 2020), CS, Indiana University, USA
- **PhD** CS, Boğaziçi University, Turkey (Dropped)
- **MSc** CS, Boğaziçi University, Turkey
- **BSc** CS, Istanbul Bilgi University, Turkey

## SKILLS

**Racket**    ●●●●●
**Python**    ●●●●●
**JavaScript**    ●●●○○
**Java**    ●●●○○
**C/C++**    ●●○○○
**Go, Rust, Haskell**    ●○○○○
**SQL, Matlab, R, CSS**    ●○○○○

**Linux**    ●●●●●
**Git/Version Control**    ●●●●●
**LaTeX**    ●●●●○
**Emacs**    ●●●●○

**Electric Guitar**    ●●●●○
**Fantasy Role Playing**    ●●●●○
**Tango**    ●●○○○
**StarCraft II**    ●●○○○

## AWARDS & SCHOLARSHIPS

- Full Scholarship for BSc, 2005-2010
- Research Scholarship for MSc (fully funded for 2 years)
- Scholarship for a research project on teaching natural languages to hearing impaired, 2014.
- Best Band Performance & Second Best Composition at The Musical Contest among high schools, 2004

## EXPERIENCE

- **Teaching & Research Assistant**, Indiana University, 2015 – 2019. Taught Introduction to Programming, Domain Specific Language Design.
- **Product Development Specialist**, Asseco SEE, 2013. Used Java, Tomcat, Spring, Jira.
- **Teaching Assistant**, Istanbul Bilgi University, 2010 – 2013. Taught Programming Language Principles, Data Structures & Algorithms, Database Systems.
- **Hackathonist'14**, Istanbul, 2014. Developed a Google Glass application (running on a mock glass API) that talks with the CitySDK for various smart city tasks (e.g. finding a suitable bus-route).