Poyraz Yilan

⚲ Paris, France   🔗 yilanp.github.io   **in** PoyrazYilan

Education

Inria Paris - Airbus - Sorbonne University   *Paris - Toulouse, France*
CIFRE PhD, Theoretical Computer Science   *Sept 2025 – Aug 2028*

- Subject: Automated Verification of a Class of Concurrent Control Programs in Weak Memory Using Monotonous Threads

École Polytechnique, Institut Polytechnique de Paris   *Palaiseau, France*
MSc, Theoretical Computer Science (MPRI)   *Sept 2023 – Aug 2025*

- GPA: 3.52/4.0
- For more information: https://wikimpri.dptinfo.ens-cachan.fr 🔗

Atilim University   *Ankara, Turkey*
B.S., Computer Engineering   *Sept 2019 – June 2023*

- GPA: 4.0/4.0
- Graduated as valedictorian

Özel Emine Örnek Fen Lisesi (Private Emine Örnek Science High School)   *Bursa, Turkey*
Lise Diploması (High School Diploma)   *Sept 2015 – June 2019*

- GPA: 99.03/100

Research Experience

Research Intern, M2 Internship   *Paris, France*
ATE-Pro, Inria Paris   *April 2025 – Aug 2025*

- Currently working on a subset of the PhD topic under the supervision of Dumitru Potop-Butucaru and Jean-Marie Madiot.

Research Intern, M1 Internship   *Paris, France*
Cambium, Inria Paris   *May 2024 – Aug 2024*

- Collaborated on the development of herdtools7, a comprehensive tool suite for simulating and testing weak memory models, under the supervision of Luc Maranget.
- Developed a new version of litmus to execute OCaml litmus tests, incorporating runtime parameters and collecting detailed execution results.
- Explored ways of extending the herd simulator to support OCaml by creating a front-end for a subset of the language and implementing a symbolic interpreter to generate execution candidates.

Research Intern, Bachelor's 3rd Year Internship   *Lisbon, Portugal*
LASIGE, University of Lisbon   *July 2022 – Sept 2022*

- Worked with the FreeST programming language under the supervision of Professor Vasco T. Vasconcelos and Diogo Poças as part of an Erasmus+ Traineeship program at the Faculty of Sciences of the University of Lisbon.
- Developed concurrent (message-passing) applications with the FreeST programming language.
- Provided solutions using FreeST for proposed algorithms and problems.

Undergraduate Research   *Ankara, Turkey*
Atilim University   *Feb 2022 - Jun 2022*

- Part of a research team among other undergraduate students that created a communication system using lasers.
- In charge of finding solutions to modulating the laser lights in the system.
- The team presented the demo of the project at the "Research Day" event at Atilim University.

Teaching Experience

Teaching Assistant   *Ankara, Turkey*
Atilim University   *Sep 2022 – Jan 2023*
- Instructed the lab lectures of "Computer Programming in C" in two different sections.

Self Employed Teaching
- Tutored other students in algorithms, data structures and programming languages in 1-on-1 lectures.

Other Relevant Experience

- Participated in PLDI 2024 as a student volunteer.
- Attended the "Differential λ-Calculus and Differential Linear Logic, 20 Years Later" conference at CIRM.
- Participated in SPLASH 2022 as a student volunteer.
- Participated in ICFP 2022 as a student volunteer.
- Recruited as a mentee in the Sigplan long term mentoring program.

Industrial Experience

Software Engineering Intern   *Bursa, Turkey*
Akbaş Holding A.Ş.   *Aug 2021 – Sep 2021*
- Developed an employee rating system to be used by department heads to create yearly reports for the board of directors.
- Used SAP for basic operations.

Projects

SChess - Dynamic Chess
- Top 5 in the capstone project competition by the Turkish Informatics Association
- SChess is an innovative online chess platform aimed at revitalizing traditional chess by reducing reliance on established theory and fostering creative gameplay. The platform uniquely generates a different chess variant for each match, combining three atomic rules from a comprehensive database. This initiative addresses the critical issue in high-level chess play where heavy reliance on theory diminishes creativity and raw talent, often leading to drawn games. At lower levels, it mitigates the imbalance of skill through unpredictability in gameplay.
- Created a multiplatform architecture that allows the game to run natively on most of the modern devices and browsers.

Turkish Poetry Esolang
- Designed and implemented an interpreter for an original turing-complete esoteric programming language that has a syntax indistinguishable from Turkish poetry.
- ASP.NET was used to create a website that allows users to input their own source code and try it themselves.

Technologies

Languages and Tools: C++, C, C#, OCaml, Coq, Agda, Python, Unity
Spoken Languages: English - C1 (IELTS 8.0), German - A2, French - A1, Turkish - Native