

# Javad Ebrahimian Amiri

96/15 John Cleland Crescent, Florey  
ACT 2615  
☎ +61 (4) 6876 4362  
✉ javad.amiri@anu.edu.au

## Education

- 2016–Now **Ph.D. in Computer Science**, *Australian National University*.  
Thesis Topic *A Verifiable Foundation for Development of Programming Languages for Real-Time Systems*
- 2011–2013 **M.S. in Software Engineering**, *University of Tehran*, Tehran, Iran, 17.7/20.  
Thesis Topic *Resource Management for Accuracy Improvement in Real-Time Systems: A Prototypical Implementation*
- 2006–2011 **B.S. in Software Engineering**, *University of Tehran*, Tehran, Iran, 13/20.

## Research Interests

System software design (e.g. operating system and language runtime) for:

- *safety-critical systems with real-time requirements*
- *many-core and heterogeneous systems*

## Academic Experience

- 2017–2018 **Tutor of Computer Organization and Program Execution**, *Australian National University*.
- 2014–2016 **Convernor of Operating Systems Lab**, *University of Tehran*.
- 2012–2016 **Tutor of Operating Systems**, *University of Tehran*.
- Summer 2015 **Co-supervisor of B.S. Students**, *University of Tehran*.
- Fall 2015 **Educator of a workshop on:**, *Conceptual study and preliminary performance evaluation of some RTOSs*, Sharif University of Technology, Tehran, Iran.

## Selected Posgraduate Courses

- |                                    |                                      |
|------------------------------------|--------------------------------------|
| ◦ High Performance Computing 20/20 | ◦ Multi-Core Embedded Systems 20/20  |
| ◦ Fault Tolerant Systems 18.8/20   | ◦ Adv. Computer Architecture 18.5/20 |
| ◦ Performance Evaluation 18.5/20   | ◦ Stochastic RT Systems 18.5/20      |
| ◦ Adv. Operating Systems 17/20     | ◦ Real-Time Systems 16.5/20          |

## Selected Projects

- Rust & C **A** programming language VM for real-time systems
- Rust & C **P**orting a programming language VM to Rumprun-seL4
- C & asm **H**acking the network interrupt manager in RTEMS RTOS

C++ Adding fault injection and AVF calculation to the GEM5 full-system simulator  
C# & Matlab Simulation of a load balancing many core system employing Model Predictive Control

---

## Technical Skills

Programming Languages **Rust, C/C++, X86 & ARM assembly, Java, C#, Python.**

---

## Honors and Awards

Awarded **Ph.D. scholarship for international students**, *Australian National University*.  
**Supplementary Ph.D. scholarship**, *CSIRO Data61 (NICTA)*.

Ranked **4<sup>th</sup> among 2000+**, *Ph.D. in software engineering entrance exam*, Iran.  
**90<sup>th</sup> among 30000+**, *M.S. in software engineering entrance exam*, Iran.  
**394<sup>th</sup> among 200000+**, *University entrance exam*, Iran.

---

## Publications

J. E. Amiri and M. Kargahi. A predictable interrupt management policy for real-time operating systems. In *2015 CSI Symposium on Real-Time and Embedded Systems and Technologies (RTEST)*, pages 1–8, Oct 2015.