Javad Ebrahimian Amiri

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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*
- Fault Tolerant Systems *18.8/20*
- Performance Evaluation *18.5/20*
- Adv. Operating Systems *17/20*
- Multi-Core Embedded Systems *20/20*
- Adv. Computer Architecture *18.5/20*
- Stochastic RT Systems *18.5/20*
- 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 **4th among 2000+**, *Ph.D. in software engineering entrace exam*, Iran.

90th among 30000+, *M.S. in software engineering entrace exam*, Iran.

394th among 200000+, *University entrace 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.