

Javad Ebrahimian Amiri

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To

August 11, 2019

*Adaptive Optics Group Lead,
Research School of Astronomy and Astrophysics,
ANU College of Science*

I'm writing this statement to apply for the job number 528037, titled "*Adaptive Optics Real-Time Software Engineer*", advertised on the ANU jobs website. I found this position aligned to my interests, experiences and capabilities.

Here I address how I meet the selection criteria:

1. I hold a M.S. in software engineering from the University of Tehran, the most well-known university in Iran. I'm also in the final year of my Ph.D. in computer science at ANU. My research in both degrees has been focused on real-time systems.
2. Both my M.S. and Ph.D. theses include design, implementation and testing of real-world software systems (e.g. RTOS and language VM).
3. I have done large-scale software development using C/C++ or Rust as the core language. I have also been using Python as a scripting language and a test target for my Ph.D. thesis. As HPC experience, I have done a few postgraduate courses and research, on a wide range of topics including designing multi/many-core processors and co-processors, programming parallel architectures such as GPUs and Intel SIMD instructions, and multi-threaded paradigms like pthreads and openmp.
4. I have done software development at operating-system and language runtime level, which requires permanent attention to multi-threading in various system aspects including design, implementation and performance evaluation.
5. My experience in developing real-time software includes addressing many technical (e.g. memory and device driver) and management (e.g. dividing responsibilities and documentation) challenges.
6. In our research group at ANU, I am working as a team member responsible for design and implementation of a real-time variant of a software system. Software engineering practices such as agile Scrum are used in our group. It also includes solving many engineering problems.
7. High-quality documentation has always been critical to my work, as it facilitates understanding other team members' works and clarifying my work to them.
8. I appreciate the principles and policies towards equal opportunity, and I believe it is beneficial for individuals, employers and the society.

I look forward to hearing from you.

Regards,

Javad Ebrahimian Amiri