Aman Soni

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Experienced technical engineer, with recently minted doctorate, looking for a role in a skilled team that builds products to change the world positively. Having over 15 years' experience in systems architecture, full-stack development, data science and infrastructure automation. Communicates technology effectively as a public speaker or team leader. Proven problem-solving abilities across in a wide range of technologies and industries and a history of successful projects across the globe.

Education

2015 (current) Aston University – PhD Computer Science

- Thesis title: 'Synergies between reinforcement learning and evolutionary dynamic optimisation for dynamic optimisation problems in stochastic environments'.
- Extended the Open AI Gym framework with new evolutionary problem environments for the *moving peaks benchmark* and introduced a new *double mountain car* problem. Implemented evolutionary algorithms to solve the cart-pole reinforcement learning benchmark and the additional evolutionary environments.
- Published 2 conference papers and have 2 journal papers under review
  - Soni, Aman, Peter R. Lewis, and Anikó Ekárt. "Offline and online time in sequential decision-making problems." Computational Intelligence (SSCI), 2016 IEEE Symposium Series on. IEEE, 2016.
  - Soni, Aman, Peter R. Lewis, and Anikó Ekárt. "Synergies Between Reinforcement Learning and Evolutionary Dynamic Optimisation." Artificial Life and Intelligent Agents Symposium. Springer, Cham, 2016.
- 2018 EAS Postgraduate Conference organising committee
- 2017 Biotechnology Winners - Young Entrepreneurs Scheme
- 2017 Student representative on the EAS school research committee.
- 2016 – University Colours for founding AstonHack
- 2015 – 2019 Teaching assistant and demonstrator
  - Operating Systems
    - Module covers operating systems history and architecture, process and thread management, scheduling algorithms and memory management.
  - Advanced Databases modules.
    - Practical module where students are required to demonstrate proficiency in a minimum of two database servers by submitting projects utilising the servers to pass the course. The database choices are PostgresSQL, Hadoop, MongoDB, Kafka and Spark and I have been supporting students with installation and development issues over the last 3 years. The recommendation is to use Docker, however there are virtual machine available (use docker to setup the VM's)

2012 – 2015 Aston University – BSc (Hons) Computer Science 1st Class

- 2015 Local HackDay Organiser. Hackathons, hackathons, hackathons
- 2015 SU colours for contributions to the Computer Science Society
- 2015 SU colours for contributions to the Mature Students Society
- 2014 placed 2nd in the UK in the CapGemini SuperTechies Competition
- 2014 Global finalist for the Atos IT Challenge
- 2013-15 Awarded EAS International Undergraduate Scholarship
- 2013 British Computing Science award for best 1st year Computing Student at Aston

Professional Experience

Contract Roles

Various contract roles in Southern Africa and the UK spanning the full SDLC including pre-sales technical consulting, requirements analysis, technical mentorship, software development and application architecture. Projects have been successfully delivered for several different organisations including; First National Bank, The National Gambling Board of South Africa, Outsurance, Nedbank, Investec, Computerweek SA, Route Gaming Solutions, Rand Merchant Bank and South African Airways.

I currently work on research projects for GRiST, a mental health risk assessment system used by the NHS, and the Forensic Linguistic Database system. I have overall technical responsibility for the GRiST project including implementing CI/CD pipelines, production system monitoring and ongoing systems development. I architected the FLDB application and now provide technical mentorship for the development team.

Permanent Roles

2008 – 2010   Nedbank Pty   Technical Specialist
Developed and maintained BPM systems for the Asset Financing division. Integration project with loan originators earned team 'Most Improved Team Award' in the Retail Banking division. Developed and implemented service layer for loans originators for vehicle applications using IBM WebSphere, EJB and an Oracle database server. My team won 'Most Improved' in Retail Banking at Nedbank for the successful implementation of this project.

2005 – 2007   Pinewood Technologies PLC   Project Architect
Promoted to technical team leader of the Contract Hire module. Nominated for Best Improver for the Pendragon Top Gun for 2007. Developed Contract Hire module for Pendragon Plc. Promoted to Project Architect responsible for the development and architecture of this module within the hosted application.

2003 – 2005   First National Bank   Technical Lead
Successfully developed and implemented a service layer for integration projects for the loans processing division with insurance providers, GIS data, the South African Deeds Office, loan originators and deeds registration using a web services for access to the loans processing system. 3rd party integration reduced average loans processing times by almost 50% at First National Bank.

1999 – 2003   Route Gaming Solutions   Technical Team Leader
Architected and developed database structures and procedures for financial processing for the CEMS, a monitoring system for the National Gambling Board in South Africa. Challenges included having the system certified by the National Bureau of Standards migration to Microsoft SQL Server 2005. There have been no reported bugs against this code since implementation in 2004.

1998 – 1999   IO Core Pty   Technical Team Leader
Successful development and implementation of the WebTrade Internet Share Trading Application into several leading banks and brokerages in South Africa, including a site which won the South African Business Day "Site of the year" award in 1999. Customisation of WebTrade for implemented by several financial services organizations to allow customers online access to their portfolios.

Additional Skills
Full UK driver's license
Beginners Spanish and Mandarin

Personal Achievements and Interests
- 2015- 2018 Headstart invited academic speaker
- 2012 – 2016 yearly improvement on race time for the Birmingham Great Run ½ marathon
- 2012-2014 English Bridge Union Grand Master (Warwickshire)