
Profile

Dr. Tom Arbuckle.

Summary

Profession: software engineering researcher (previously computer scientist/research engineer/physicist)

Fields of publication: software engineering (not yet), biodiversity informatics, robotics, machine vision, AI, and fuzzy logic.

Current Research Interests: functional program specification, formal methods, program verification and testing.



Brief History: After earning his Ph.D. modeling nonlinear electromagnetic wave propagation, Dr. Arbuckle gained four years industrial experience as a visiting research engineer working within a Japanese government funded face recognition project at the semiconductor research laboratories of the Mitsubishi Electric Corporation in Osaka, Japan. He subsequently returned to academia and to Europe to join the EU funded VIRGO project for vision on autonomous robots at the node of the renowned Bonn robotics research group and its robot, Rhino. Here he researched, developed and coded an object-oriented image processing framework particularly suited for deployment on autonomous robots, additionally supervising a successful Masters thesis based on this work. Thereafter his work centred on a multi-disciplinary ecological project concerning the identification and monitoring of bee species. (Bees are responsible for the pollination of the majority of food crops.) In this project, funded by the German ministry for education and research, Dr. Arbuckle was responsible for continuing the research, development and coding of the statistical, image processing and software aspects of this system. Additional activities during this project also included public relations, system demonstrations, course development and teaching (in a foreign language, German).

He has now joined the SQRL team at the University of Limerick where he is developing his interest and passion in quality software. He began work by taking on the mentorship of Darren Bane and his work on the kernel of our table tools system. Marius Dragomiroiu joined his group of mentees thereafter with his work on an identification/diagnostics system whose basis lies in the concept of rough sets. Work on the kernel has now passed into an initial implementation phase with the work on the identification system well advanced largely freeing him up to begin a research thread. He is currently looking to see where a contribution is needed (by the group) that also holds interest as a research topic as well as bringing himself up to speed in what is for him effectively a new field.
