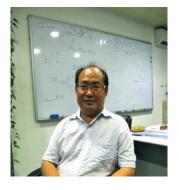# 西南大学软件研究与创新中心

RISE - Centre for Research and Innovation in Software Engineering

Call for Applications of PhD Students

Head of RISE: Zhiming Liu

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Professor at Southwest University, and Adjunct Professor at Nanjing University of Aeronautics and Astronautics, and PhD supervisor at both universities.

MSc, Software Institute, Chinese Academy of Science (1988), PhD from University of Warwick (1991).

Lecturer, Univ. of Leicester (1994–2005); Research Fellow and Senior Research Fellow of UNU-IIST (2002–2013); Chair of Software Engineering, Birmingham City University (2013–2015)

Co-authored and co-edited with scientists from over 30 institutions of over 20 countries.

Requirements

✓ Well motivated with strong interest in computer science and/or software engineering.
✓ A good master degree in computer science, software engineering, maths or related subjects; or a good first degree for the entry to five-year PhD degree program.
✓ Good communication skills in English – similar requirements for English as entries to postgraduate studies in the UK and USA.

Research environment and conditions

✓ The Centre enjoys 10 million CNY funding from the University, city of Chongqing and the central government for the next five year, and good sources of project funding from national and local funding agencies and industry.
✓ Well equipped lab of over 120 square meters (currently being furnished).
✓ The centre has a growing hierachical and collaborative research team conducting teaching and research in mainstream areas of computer science and software engineering
  ➢ Full-time professors, associate professors, lecturers, postdoctoral fellows, PhD students, and MSc students,
  ➢ Adjunct professors and researchers from oversea and from inside China,
  ➢ National and international visiting scholars and research students.
✓ The Centre has wide international and national collaboration networks, and the budget of the Centre includes the support to each PhD student to study and do research 12 months with a designiated oversea research partner.
✓ Very good support to students for participating national and international conferences and schools, as well as research visits.
✓ Scholarships from the University and the Centre are avaliable for good applicants.

Research areas

Software theories and methods – theories, techniques and tool support in software modelling, analysis, design, verification and validation, and their applications.

✓ **Systems**：Concurrent and Distributed Systems, Web-service Systems, Cloud Computing Systems, Internet of Things, Datacentres, Cyber-Physical Systems.
✓ **Applications**：Major areas related to the economic and humanity development: transport, industry and manufacture automation, digital health, digital algriculture, environment management, smart homes and cities, etc.
✓ **Trustworthiness**：correctness, safety, security, real-time, fault-tolerance, evolvability.
✓ **Models and theories**：denotational semantics, operational semantics, simulation models, logics of programming, theories of automata, AI, and unifying theories.
✓ **Methods and tools**：model-driven design, refinment, theorem proving, model checking, simulation, debugging.