■ 个人信息

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■ 个人简介

长期致力于数据挖掘、智能计算方法研究及其在医学领域的应用研究。主持国家级、省部级、温州市重大科技专项等 10 余项课题，开发出多套智能辅助诊断系统并交付使用。入选浙江省“万人计划”青年拔尖人才、第二批“浙江省高校领军人才培养计划”培养对象（高层次拔尖人才）、温州市"551 人才工程"、温州大学瓯江特聘教授等多项优秀人才计划。先后上榜 2022 全球学者学术影响力排行榜、2020/2021 中国高被引学者（Highly Cited Chinese Researchers）榜单、Guide2Research 机构认定的中国计算机领域前 200 强科学家榜单，2021/2022 年全球前 2%顶尖科学家榜单。近年来，以第一作者/通讯作者在 IEEE Transactions on Circuits and Systems for Video Technology, Information Sciences, Future Generation Computer Systems, Expert Systems with Applications, Knowledge-based Systems, Neurocomputing, Engineering Applications of Artificial Intelligence, Applied Soft Computing 等国际人工智能领域重要学术期刊发表论文 100 余篇，其中 10 余篇入选 ESI 高被引论文，5 篇入选 ESI 热点论文。当前 H 指数为 80(Google Scholar 统计)，论文被引数达 2 万余次。受邀担任国际 SCI 杂志《Computers in Biology and Medicine》共同主编，《Scientific Reports》，《Journal of Bionic Engineering》,《Journal of Computational Design and Engineering》等多个国际 SCI 杂志编委。相关研究成果荣获中国商业联合会科学技术奖特等奖、中国产学研合作创新与促进奖一等奖、温州市第十五届自然科学优秀论文一等奖。

■ 专业领域及主要研究方向

研究的专业领域：人工智能、知识工程
主要研究方向：数据挖掘、机器学习方法及应用

■ 主要工作经历

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■ 近年完成的主要教学科研成果目录

■ 代表性论文 （*代表通讯作者）

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parameter estimation of photovoltaic models. **Energy Conversion and Management**, 2022, 270: 116246.
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- **主持/承担的科研/教学项目**

1. 大数据驱动的肺部感染性疾病预测模型的构建与应用，国家自然基金面上项目（62076185，2021.01-2024.12，主持）
2. 面向医学诊断的智能决策新方法研究，国家青年自然科学基金项目（61303113，2014.01-2016.12，主持）
3. 面向高维医学数据分类的特征选择方法研究，浙江省自然基金重点项目（LZ22F020005，2022.01-2024.12，主持）
4. 基于大规模医学数据的智能疾病诊断方法研究，浙江省自然基金面上项目（Y17F020061，2017.01-2019.12，主持）
5. 大数据驱动的肺部感染性疾病预测预警关键技术研究，温州市重大科技专项（ZG2017019，2017.01-2019.12，主持）
6. 面向医学诊断决策问题的机器学习方法研究，教育部重点实验室开放课题（93K172013K01，2013.01-2014.12，主持）
7. 面向企业危机预警的智能决策关键技术研究，温州市科技计划项目（G20140048，2015.06-2017.05，主持）
8. 线教育平台数据处理和算法优化业务（横向），吉林农业大学（2019.05-2020.05，主持）
9. ***自组织***技术，军委科技委国防创新特区项目（2020.12-2021.12，2/2）
10. 基于多模态深度分支融合网络的意识障碍致病机理研究及精准诊断应用，国家自然科学基金联合重点项目（U1809209，2019.01-2022.12，4/10）
11. 面向肺部感染性疾病预诊及诊断的智能决策研究，浙江省重点基金（LJ19F020001，2019.01-2022.12，2/7）
12. 基于深度学习的病理图像自动分析关键技术及应用，温州市重大专项（2018ZG012，2019.01-2022.12，2/9）

13. 大数据视角下的老年脑疾病精准诊断智能研究平台研发，温州市重大专项（ZY2019019，2019.06-2021.12，2/10）
14. 基于机器学习的企业危机预警模型研究，温州大学实验室开放项目（13SK29A，2013.04-2014.04，主持）
15. 基于声音信号的帕金森病早期诊断新方法研究，温州大学实验室开放项目（15SK26A，2015.04-2016.04，主持）
16. 微课驱动的"学""练"一体化课程探索和改革-以《程序设计基础》为例，温州大学教学改革项目（15jg57，2015.11-2017.11，主持）
17. 基因调控网络的鲁棒结构干预研究，国家自然科学基金面上项目（61572367, 2016.01-2019.12，参加/第三）
18. 贝类重金属污染的多模态融合光谱开集检测及不确定度研究，国家自然科学基金面上项目（31571920，2016.01-2019.12，参加/第三）
19. 面向个性化推荐服务的社交网络数据深挖掘关键技术研究，国家青年自然科学基金项目（61402336，2015.01-2017.12，参加/第二）
20. 基于动态特征的真伪笑容表达与识别研究，国家青年自然科学基金项目（31500875，2016.01-2018.12，参加/第二）
21. 基于数据驱动的公交网络性能监测及影响因素分析，浙江省自然基金项目（LQ13G010007，2013.01-2015.12，参加/第二）
22. 多源多模态医学数据挖掘及其在阿尔茨海默病诊断中的应用，浙江省自然基金项目（LY14F020035，2014.01-2016.12，参加/第二）
23. 大数据驱动的短期公交客流量预测算法研究，浙江省自然基金项目（LQ16G010006，2015.01-2017.12，参加/第三）

- **专利及软著**

1. 一种基于混沌灰狼优化的支持向量机方法，国家发明专利，专利号：ZL201610669347.4，陈慧灵、王名镜等
2. 一种基于改进灰狼优化算法的数据分类预测方法及系统，国家发明专利，专利号：ZL201711048597.7，陈慧灵、罗杰等
3. 基于前哨多种群机制果蝇优化算法来构建预测模型的方法，国家发明专利，公开号：CN109948675A，陈慧灵、李世民等
4. 一种基于改进灰鲸优化算法来构建预测模型的方法，国家发明专利，公开号：CN110069817A，陈慧灵、杨陈君等
5. 一种基于正交多种群正余弦算法来构建预测模型的方法，国家发明专利，公开号：CN110222751A，陈慧灵、陈昊等
6. 基于量子旋转门及退火飞蛾优化算法构建预测模型的方法，国家发明专利，公开号：CN110598742A，陈慧灵、俞蔡阳等
7. 分类预测模型的优化方法、装置及终端设备，国家发明专利，公开号：CN 108229536A，陈慧灵、王科杰等
8. 一种基于灰狼优化算法的数据分析方法及装置，国家发明专利，公开号：CN 107909141A，陈慧灵、罗杰等
9. 一种基于反向学习和混沌趋向步长的改进细菌优化方法及应用，国家发明专利，公开号：CN 108171371A，陈慧灵、张谦等
10. 模型参数优化的方法及装置，国家发明专利，公开号：CN106650930A，陈慧灵、王名镜等

11. 一种基于核极限学习机的风险预测的方法和装置，国家发明专利，公开号：CN 106022517A，陈慧灵、赵学华、王名镜等
12. 一种基于改进飞蛾优化算法的预测模型方法，国家发明专利，公开号：CN109344994A，徐粤婷、陈慧灵等
13. 一种基于正交反向樽海鞘优化算法的预测方法，国家发明专利，公开号：CN109284860A，焦珊、陈慧灵等
14. 基于信息共享搜索策略和 NM 单纯型的鲸鱼优化光伏模型参数方法，国家发明专利，专利号：202211187891.7，陈慧灵、彭乐民等
15. 一种基于增强粒子群优化的特应性皮炎特征预测方法，国家发明专利，专利号：202211430138.6，陈慧灵、许素玲等
16. 一种基于鲸鱼优化算法的 COVID-19 重症指标预测方法，国家发明专利，专利号：202211597346.5，张玫麟、陈慧灵等
17. 一种解决风力发电机和 FACTS 装置最优潮流问题的方法，国家发明专利，专利号：202210649165.6，陈慧灵、翁学盟等
18. 基于随机森林的过敏性鼻炎辅助诊断系统 V1.0，软著，登记号：2022SR1519002，杨洋、陈慧灵、李心如、吕浩轩
19. 基于深度学习的新冠肺炎辅助诊断系统 V1.0，软著，登记号：2022SR1552066，张玫麟、郝淑慧、彭乐民、周鑫森、陈慧灵
20. 基于 Spring Boot 的结核性胸腔积液智能诊断系统 V1.0，软著，登记号：2021SR1468290，吴雅青、陈慧灵、吴千喜、吴梦婷
21. 基于正余弦优化的哮喘病智能诊断系统 V1.0，软著，登记号：2021SR1311872，刘佳聪、陈慧灵、尚明向、杨锬、黄长城
22. 基于优化支持向量机的哮喘病智能诊断系统 V1.0，软著，登记号：2020SR1595657，杨淞宇、陈慧灵、王迪、黄长城
23. 基于鲸鱼优化算法的帕金森诊断系统 V1.0，软著，登记号：2020SR1044707，周汉峰、陈慧灵、谷志阳、孙诚
24. 基于正余弦权重模型的疾病预测系统 V1.0，软著，登记号：2020SR1044603，余劭赟、陈慧灵、赵昱、周晨宇、张加波
25. 基于随机森林的结石预测系统，软著，登记号：2020SR0557841，杨锬、李忠月、陈慧灵
26. 企业模拟风险评估软件，软著，登记号：2020SR0554913，刘佳慧、陈慧灵、傅航飞、尚明向
27. 基于 Python 的脓毒症智能诊断系统 V1.0，软著，登记号：2020SR0006940，吴述彪、陈慧灵、汪鹏君、李成业
28. 基于 Android 的结核性胸腔积液智能诊断系统 V1.0，软著，登记号：2020SR0002825，吴述彪、陈慧灵、汪鹏君、李成业
29. 基于卷积神经网络的狼疮性肾炎辅助诊断系统 V1.0，软著，登记号：2020SR0245121，吴述彪、陈慧灵、汪鹏君、陈晓薇、李成业
30. 基于改进 SVM 的银行信用预测系统 V1.0，软著，登记号：2020SR0003214，乔雪婷、陈慧灵、王玉娟、郭露冰芝、朱振宇
31. 基于改进 GOA 优化算法的结核性胸腔积液诊断系统 V1.0，软著，登记号：2020SR0001890，丁泽威、陈慧灵、彭鸿鑫、周汉峰、汪鹏君、李成业
32. 基于基于 JSP 的乳腺癌辅助诊断系统，软著，登记号：2019SR0348858，李敏惠、陈慧灵、桂文永、卢家豪、仰丹晨

33. 基于 Python 的企业破产智能预测系统，软著，登记号：2019SR0348843，刘佳慧、陈慧灵、傅航飞、尚明向、韦家慧
34. 基于 MATLAB 的阑尾炎智能辅助分析系统设计与开发系统，软著，登记号：2019SR0348848，李世民、陈慧灵、杨宇涛、李佳伟、曾丹
35. 基于支持向量机的草甘膦中毒诊断系统，软著，登记号：2019SR0342080，陈昊、陈慧灵、杨锬、李世民、夏建福
36. 基于 k 邻近法的良恶性胸腔积液诊断系统，软著，登记号：2019SR0405592，杨宇涛、陈慧灵、李世民、李佳伟、曾丹
37. 基于 python 和 KNN 的哮喘诊断系统，软著，登记号：2019SR0436531，李佳伟、陈慧灵、李世民、杨宇涛、曾丹
38. 基于超声特征的甲状腺癌智能诊断系统，软著，登记号：2019SR0268339，杨陈君、陈慧灵、杨锬、李成业、夏建福
39. 基于血液样本的胸腔积液智能诊断系统 V1.0，软著，登记号：2018SR227743，杨陈君、陈慧灵、李成业、蔡振闹
40. 基于血常规的甲状腺癌智能诊断系统 V1.0，软著，登记号：2018SR290547，陈慧灵、杨陈君、李成业、蔡振闹
41. 基于机器学习技术的胸腔积液智能诊断系统 V1.0，软著，登记号：2018SR762485，罗杰、陈慧灵、张谦、徐粤婷、李成业
42. 基于人工智能技术的哮喘辅助诊断系统 V1.0，软著，登记号：2018SR762696，张谦、陈慧灵、罗杰、焦珊、夏建福
43. 基于机器学习的甲状腺疾病智能诊断系统 V1.0，软著，登记号：2017SR108395，王科杰、陈慧灵、朱俊杰、沈立明
44. 基于优化支持向量机的胸腔积液智能化诊断系统 V1.0，软著，登记号：2017SR294349，柳建飞，陈慧灵，陶珂珂，王科杰
45. 基于机器学习的信用风险评估系统 V1.0，软著，登记号：2017SR619787，陈慧灵，朱彬磊，蔡振闹
46. 基于退火果蝇支持向量机的企业破产预测系统 V1.0，软著，登记号：2017SR622596，朱彬磊，陈慧灵，王科杰，朱俊杰
47. 基于血液样本的结核性胸膜炎智能辅助诊断系统 V1.0，软著，登记号：2017SR619715，陈慧灵，罗杰，蔡振闹，李成业
48. 基于 PHP 的医学数据预处理系统 V1.0，软著，登记号：2017SR619813，陈慧灵，张谦，蔡振闹，李成业
49. 基于支持向量机的帕金森病诊断系统 V1.0，软著，登记号：2016SR284899，陈慧灵、沈立明、张璐、王名镜
50. 基于机器学习的乳腺癌诊断决策支持系统 V1.0，软著，登记号：2016SR382027，沈立明、张璐、王科杰、柳建飞、陈慧灵

■ 担任国际学术组织或国际学术会议重要职务

1. 受邀担任国际 SCI 杂志《Computers in Biology and Medicine》**共同主编** (2021.10)
2. 受邀担任 SCI 杂志《BIOCELL》副主编 (2022.8.16)
3. 受邀担任 SCI 杂志《Journal of Computational Design and Engineering》编委 (2022.4.19)
4. 受邀担任 SCI 杂志《Journal of Bionic Engineering》编委 (2022.4.4)

5. 受邀担任 SCI 杂志《Scientific Reports》编委 (2021.5.10)
6. 受邀担任国际 SCI 杂志《Computational and Mathematical Methods in Medicine 》期刊编委 (2020.1.10)
7. 受邀担任国际 SCI 杂志《IEEE ACCESS》副主编 (2019.8)

■ 获奖及荣誉情况

1. A novel bankruptcy prediction model based on an adaptive fuzzy k-nearest neighbor method（一种基于自适应模糊 k-近邻方法的企业破产预测新模型）， 第十五届温州市自然科学优秀论文一等奖 （温州市人民政府，2013.10，排名第一）
2. 智能决策新技术研究及农业应用， 中国商业联合会科学技术奖一等奖 （证书编号：2014-1-29-R03，12/14）
3. 场景主动感知与目标运动状态分析关键技术研究及应用，2021 年中国产学研合作创新与促进奖一等奖 （编号：20216002，10/10, 2022.1）
4. 面向污泥耦合热电气高效联供的智能感知与协同控制关键技术及应用，中国商业联合会科学技术奖特等奖 （2022.5/15）
5. 入选 2022 年全球前 2%顶尖科学家榜单 (2022.10)
6. 入选 2022 全球学者学术影响力榜单，全国排名第 58 位，全球排名第 21491 位（2022.8.31）
7. 入选 2021 中国高被引学者（Highly Cited Chinese Researchers）榜单 (2022.4.14)
8. 入选由 Guide2Research 机构认定的中国计算机领域前 200 强科学家 (2020.1.10)
9. 两篇 SCI 论文入选 2020 年中国百篇最具影响国际学术论文 (2021.12)
10. 入选第二批“浙江省高校领军人才培养计划”培养对象（高层次拔尖人才） (2022.1.25）
11. 入选浙江省“万人计划”青年拔尖人才 (2021.12)
12. 入选温州大学瓯江特聘教授 (2021.8)
13. 入选温州大学瓯江特聘教授“新湖青年学者” (2019.8)
14. 入选 2016 年度温州市“551 人才培养工程”人才
15. 荣获 2022 年度温州市科技创新和人才工作成绩突出个人 （2022.12.28）
16. 荣获 2021 年度温州市优秀教师称号 (2021.9)
17. 入选温州大学创新创业竞赛金牌导师(2022.10)
18. 入选温州大学第八届陈国同奖励基金“育人典范奖”（专任教师） (2020.7)
19. 入选温州大学第八届“我心目中的好导师” (2020.6)
20. 荣获 2017 年度温州大学优秀教师称号
21. 荣获 2014 年度温州大学优秀党员称号
22. 获评温州大学“青春温大”2021 年度榜样人物 (2021.4)
23. 医学数据挖掘和智能计算团队，入选温大第二批“五好”导研团队 (2022.4.28)
24. 指导本科生获 2017 年浙江省“第十五届挑战杯大学生课外学术科技作品竞赛”一等奖
25. 指导研究生获 2019 年浙江省“第十六届挑战杯大学生课外学术科技作品竞赛”三等奖
26. 指导本科生获 2021 年浙江省“第十七届挑战杯大学生课外学术科技作品竞赛”一等奖
27. 指导研究生获 2021 年浙江省“第十七届挑战杯大学生课外学术科技作品竞赛”二等奖
28. 指导本科生获 2022 年全国第十七届“挑战杯”全国大学生课外学术科技作品竞赛 二等奖

■ 学生培养情况

1. 已毕业硕士研究生 18 名，其中 13 名毕业生顺利申请北京航天航空大学、东南大学、吉林大学等国内知名高校攻读博士学位，2 名毕业生就职于高校科研岗，3 名毕业生就职于北京、上海等地知名互联网企业，3 名毕业生获评“浙江省优秀毕业生”荣誉称号，1 名学生获评浙江省优秀硕士学位论文；
2. 指导在读硕士研究生 26 名，多名硕士在校期间获国家奖学金、省新苗计划项目立项、研究生创新基金项目立项等；
3. 指导本科生 14 名，多名本科生在校期间发表 SCI 检索论文并获“挑战杯”国家级/省级奖项，并获评“浙江省优秀毕业生”荣誉称号；
4. 联合培养硕士研究生 22 名；
5. 双一流博士研究生访问交流 3 名。