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教授课程	《人工智能导论》、《人工智能与现代农机》、《农业自动化与信息化专题》			
承担项目	主持国家重点研发计划子课题、国家自然科学基金、江苏省自然科学基金、南京农业大学高层次引进人才科研启动经费等 5 项，参与国家重点研发计划项目、国家科技支撑计划、国家自然科学基金、江苏省重点研发计划、中央高校基本科研业务费重点项目等近 10 项。 1. 国家重点研发计划项目子课题-精准定位播种作业决策系统研究，项目编号：2017YFD0700502-2，经费 163 万，主持； 2. 国家自然科学基金-电-气混合式农业机器人抓手设计及自适应主动柔顺抓取控制研究，项目编号：31901415，经费 25 万，主持； 3. 江苏省自然科学基金-农业机器人抓取模型辨识与柔顺抓取决策实时构建方法研究，项目编号：BK20180515，经费 20 万，主持； 4. 国家自然科学基金-基于多光谱成像和近红外点阵结构光的苹果表面缺陷快速检测方法研究，项目编号：31301236，经费 23 万，参与； 5. 国家自然科学基金-基于光谱和图像特征融合的苹果内外部多品质指标同步在线检测方法研究，项目编号：31671927，经费 62 万，参与； 6. 国家科技支撑计划项目-苹果产地分级处理及储运品质监测装备研发与示范，项目编号：2014BAD21B01，经费 970 万，参与；			

	7. 江苏省重点研发计划项目-多功能自走式果园管理机器人研发，项目编号：BE2017370，经费 100 万，参与； 8. 中央高校基本科研业务费重点项目-矮化密植果园偏置式除草施肥联合作业机器人研究，项目编号：KYGX201701，经费 50 万，参与.
学术成果 (论文、专利、 软著等)	主要从事人工智能、机器学习、数据挖掘技术及其在农业机器人、智能农业装备、农产品品质与安全无损检测技术及装备方面的应用研究。在上述领域发表 SCI 论文 50 余篇、EI 论文 10 余篇，ESI 高被引论文多篇；获得国家发明专利授权 8 项、实用新型专利 4 项、计算机软件著作权 10 项，出版学术专著"图-谱分析技术在农产品质量与安全无损评估中的应用"（武汉大学出版社，30 万字），主编国际专著"Agricultural Robots: Fundamentals and Applications" (ISBN: 978-953-51-6740-2)，参编国际专著 3 本。 **论文精选：** [1] **Zhang Baohua**, Dai Dejian, Huang Jichao, Zhou Jun*, Gui Qifa, Dai Fang. Influence of physical and biological variability and solution methods in fruit and vegetable quality non-destructive inspection by using imaging and near-infrared spectroscopy techniques: A review [J]. Critical Reviews in Food Science and Nutrition, 2018, 58(12): 2099-2118. (**SCI, IF=7.862, JCR Q1**) [2] **Zhang Baohua**, Baoxing Gu, Guangzhao Tian, Zhou Jun*, Huang Jichao, Yingjun Xiong. Challenges and solutions of optical-based nondestructive quality inspection for robotic fruit and vegetable grading systems: A technical review [J]. Trends in Food Science & Technology, 2018, 81: 213-231. (**SCI, IF=11.077, JCR Q1**) [3] **Zhang Baohua**, Zhou Jun, Meng Yimeng, et al. Comparative study of mechanical damage caused by a two-finger tomato gripper with different robotic grasping patterns for harvesting robots[J]. Biosystems engineering, 2018, 171: 245-257. (**SCI, IF=3.215, JCR Q1**)

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授权的发明专利或实用新型专利：

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