

MIAO CHENGSHI

Ph.D. Candidate. Male. Born in Xuzhou, Jiangsu. 1993.

Passionate. Curious. Ambitious and driven. Collaborative. A natural leader.

- **Strong logical thinking ability. Good understanding of algorithms.**

EXPERIENCE

GLB Intelligent Power Technologies, Shanghai, China -- Researcher

JULY 2019 - JUNE 2020

In charge of solving the state estimation problems and developing junction temperature evaluation algorithms for a 48V Belt Starter Generator (BSG). We designed algorithms with high accuracy and implemented them to the BSG successfully. **The BSG I worked on will be in mass production by the end of next year. (Developed with C, Python and MATLAB)**

Wayne State University, Detroit, USA -- Visiting Scholar

JANUARY 2018 - MARCH 2019

Conduct research on discrete event systems, hybrid systems, and their applications in automotive control. **(Theoretical Research)**

EDUCATION

Tongji University, Shanghai, China — Ph.D.

SEPTEMBER 2015 – 2021. GPA: 4.55/5.00

Major in control science and engineering. Research fields are analyzing, modeling and supervisory control of networked discrete event systems.

Nanjing Tech University, Nanjing, China — Bachelor

SEPTEMBER 2011 - JUNE 2015.

Major in Automation.

PROJECTS

Design and Implementation of the Control Systems of an Unmanned Quadrotor Helicopter: Project Leader - 2013~2015 Based on STM32, designed the controller and control algorithms for a quadrotor helicopter. **Making it be able to taking off, landing, hovering and target tracking. (Developed with C and MATLAB)**

Design and Implementation of Video Surveillance System on DM6437 Platform: Project Leader – 2015 Proposed a mixed Gaussian model to track single indoor inhabitant. **Designed and implemented a video surveillance system based on DM6437. (Developed with C and MATLAB)**

Time Scale Based Supervisory Control of Discrete Event Systems under Communication Delays: Main Participant – 2017-2020 Adopting time event to measure delays and reinvestigating closed-loop control problem. Solving safety control and nonblocking problems of networked DESs. **(Theoretical Research)**

FIRST AUTHOR PUBLICATIONS

State Estimation for Timed Discrete Event Systems with Communication Delays. Published at the 2017 Chinese Automation Congress. (EI)

Predictive Supervisory Control for Timed Discrete Event Systems under Communication Delays. Published at the 2019 IEEE conference on decision and control. (TOP, EI)

State Estimation and Supervisor Synthesis for Timed Discrete Event Systems under Communication Delays and Losses. Under 2nd review. Submitted to IEEE Transactions on Automatic Control. (TOP, SCI)

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<https://miaochengshi.github.io>

SKILLS

Proficient in MATLAB

Proficient in Python

Proficient in Microsoft Office

Proficient in Visio/OmniGraffle

Fluent in English Communication

Fluent in English Writing

Demonstrated leadership skills

Demonstrated teamwork skills

AWARDS

Excellent Bachelor Degree Thesis of Jiangsu Province.

Best Degree Thesis Prize of Nanjing Tech University

Meritorious Winner of Mathematical Contest in Modeling.

The Third Prize for National English Contest for College Students.

LANGUAGES

Mandarin, English

OTHERS

Operating a WeChat official account. Dedicated to knowledge sharing of AI-related skills. (Python programming, Algorithms, etc.)

Planning to establish a youth empowerment foundation. To promote STEAM, robots, programming and research skills to empower the youth to thrive in the new technology world.

苗成诗

博士研究生，男，江苏徐州人，1993 年生。

充满热情，好奇心强，兴趣广泛，学习能力强。乐于协作，善于组织统筹。

- 思维活跃，有较强的动手和逻辑思维能力。了解多种编程语言，有一定的算法基础。

实习经历

格雷博智能动力有限公司, 中国 上海 — 合作研发

2019 年 7 月 - 2020 年 6 月

与高级产品经理，系统工程师以及软硬件研发人员合作，负责混合动力汽车 48V 启发电一体机温度估计项目。设计了高精度的温度估计算法，并成功用于该电机的在线温度估计中。参与研发的产品将于 2021 年年底量产。（开发工具：C, Python, MATLAB）

韦恩州立大学, 美国 底特律 — 访问学者

2018 年 1 月 - 2019 年 3 月

研究离散事件系统，混杂系统及其在车辆控制中的应用。期间发表控制理论领域顶级学术会议（2019 IEEE 控制与决策大会）论文一篇。（前沿理论研究）

教育经历

同济大学, 中国 上海 — 博士学位 GPA：4.55/5.00

2015 年 9 月 - 至今（预计 2021 年）

控制科学与工程专业（一级学科）。研究方向为网络化离散事件系统的分析与控制，系统监控层的建模分析及监督控制。

南京工业大学, 中国 南京 — 学士学位

2011 年 9 月 - 2015 年 6 月

自动化专业。期间担任科协创新部副部长，并荣获 校优秀学生会干部 称号。

学士论文（江苏省优秀毕业设计）：四旋翼飞行器视觉检测模块及控制算法设计

项目经历

四旋翼飞行器控制电路设计及控制算法实现：项目负责人 -- 2013 ~ 2015

基于 STM32 开发设计四旋翼飞行器的控制器（硬件）和控制算法（软件），实现四旋翼飞行器的起降、悬停、目标跟踪等功能。（开发工具：C, MATLAB）

基于 DM6437 平台的视频监控系统设计与实现：项目负责人 - 2015

基于 DM6437 数字信号处理平台，使用改进的高斯模型实现室内目标的检测与跟踪，设计实现了一套视频监控系统。（开发工具：C, MATLAB）

时间维度离散事件系统的网络时延分析与监控器综合：主要参与人 - 2017 ~ 2020

使用时间维度离散事件系统建模，研究网络化系统中存在时延和丢包时系统状态估计方法，研究保证系统安全和无阻塞的监督控制方法。（前沿理论研究）

第一作者论文

State Estimation for Timed Discrete Event Systems with Communication Delays. 发表于 2017 年中国自动化大会。(EI 检索)

Predictive Supervisory Control for Timed Discrete Event Systems under Communication Delays. 受邀发表于 2019 年 IEEE 控制与决策大会。(控制理论领域顶级会议, EI 检索)

State Estimation and Supervisor Synthesis for Timed Discrete Event Systems under Communication Delays and Losses. 二轮审稿阶段，投稿至 IEEE Transactions on Automatic Control。(控制理论领域顶级期刊, SCI 检索)

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技能

熟练使用 MATLAB

熟练使用 Python

熟练使用 办公软件

熟练使用 Visio/OmniGraffle

熟练的 英语交流能力

熟练的 英语写作能力

优秀的 组织统筹能力

优秀的 团队协作能力

获奖

江苏省本科生优秀毕业设计二等奖

美国大学生数学建模比赛一等奖

全国大学生英语竞赛三等奖

荣誉

南京工业大学优秀毕业论文

优秀学生会干部

校三好学生

语言

普通话，英语

其他

独立运营微信公众号。致力于人工智能相关技能的知识分享。（Python 编程基础，技能教学，Python 算法等）

筹划创立具有独立研发能力的青年能力提升基金会。推广 STEAM，机器人和编程技能，助力青少年在新科技世界中茁壮成长。