Xue Li, Ph.D.

Educator | Program Manager | Data Scientist | Astrophysicist
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Professional Summary

Seasoned program manager with a proven track record in overseeing complex, cross-functional initiatives in academic, research, and STEM education environments. Experienced in managing large-scale programs, such as the nationally recognized "英才计划" ("Talents Program"), which cultivated top-tier talent through mentorship and strategic planning. Expertise includes organizing workshops, conferences, and international collaborations to drive project success. Adept at combining technical proficiency in data science, AI, and multi-agent systems with exceptional leadership and organizational skills to deliver results in fast-paced and culturally diverse settings. Strong background in securing funding through government grants and corporate partnerships, with direct experience in engaging alumni and stakeholders to support institutional growth.

Education

- **Ph.D. in Astrophysics and Cosmology,** *Niels Bohr Institute, University of Copenhagen*
- **M.Sc. in Physics,** *Dalian University of Technology*
- **B.Sc. in Physics,** *Dalian University of Technology*

Professional Experience

Data Scientist, self-employed and eXomAI, 2022–Present

- Developed automatic data processing systems to support AI model development for startups.
- Designed and developed AI multi-agent systems for applications in real estate and stock investment, enhancing decision-making processes and optimizing predictive modeling.
- Conducted AI ethics research, including studies on large language model (LLM) inaccuracies and proposed novel intervention strategies inspired by cognitive development.
- Helped set up an AI startup, contributing to its growth and technology development.

Program Manager & **Research Associate, physics department, Tsinghua University, 2016-2022**

- Successfully led the "英才计划" ("Talents Program"), mentoring students in STEM subjects and achieving top-tier performance in national and international competitions.
- Designed and implemented physics, mathematics, and programming courses tailored to diverse learning needs and cultural backgrounds.
- Secured funding from national grants and collaborated with alumni networks to support research and education initiatives.

- Organized and facilitated workshops, academic conferences, and institutional visits to promote scientific engagement and collaboration.
- Managed corporate partnerships and international collaborations, working with stakeholders to expand research and education opportunities.

Visiting Researcher, Niels Bohr Institute, University of Copenhagen, 2014-2016
- Conducted interdisciplinary research in astrophysics and data science, contributing to community-oriented projects and international research collaborations.

Key projects

1. AI Multi-Agent System for Stock Investment
- Designed and implemented an AI-powered multi-agent system for stock market analysis, utilizing advanced machine learning techniques to predict market trends and enhance investment strategies.

2. Leadership of the "英才计划" (Talents Program)
- Designed and led a nationally recognized mentorship program for high school students, focusing on STEM fields, particularly physics.
- Spearheaded all aspects of the program, from recruitment and outreach to managing the selection process, including interviews and assessments.
- Coordinated logistics for workshops, lab visits, and training sessions, ensuring students gained practical, hands-on experience.
- Cultivated strong relationships with key stakeholders, including government agencies, foundations, and academic institutions, to expand program impact.
- Resulted in students regularly receiving awards in national and international competitions, with several selected for national teams. Recognized as an "Excellent Mentor."

3. Academic and Institutional Engagement
- Managed and organized institutional events, including thesis defenses, alumni events, and visits from funders and international delegations.
- Organized and led alumni events aimed at strengthening the network between alumni, current students, and faculty, fostering long-term institutional support.
- Facilitated institutional visits for funders, governmental representatives, and international delegations, promoting the institution's achievements and fostering stronger external partnerships.
- Coordinated academic conferences, designing agendas, managing speakers, and ensuring smooth execution of research-focused events.

Awards and Honors
- Awarded "Excellent Tutor" by the Beijing Association for Science and Technology
- Appointed as a member of the physics education group by the Beijing Youth Science and Technology Center
- Tutor of Gold Medal in the national Tomorrow's Little Scientist Award Activity and International Astronomical Olympics Gold Medalist
- Won the third prize in Chinese Physics Olympiad

Core Skills
- **Educational Program Development**: Curriculum design, experiential learning facilitation, community engagement

- **Program & Project Management**: Stakeholder collaboration, fundraising, partnership development
- **Programming & AI Tools**: Python, SQL, TensorFlow, PyTorch, scikit-learn
- **Data Science & Analytics**: NLP, predictive modeling, LLMs, statistical analysis, large-scale data processing
- **Scientific Communication**: Published 20+ peer-reviewed papers with 590+ citations, contributed to outreach and public science understanding

Professional Service

- **Program Coordination**: Mentored students in research projects, managed thesis defense committees, and provided guidance on academic development.
- **Departmental Representation & Outreach**: Represented the department at educational forums, alumni meetings, and institutional events to strengthen partnerships.
- **Event & Academic Meeting Organization**: Led the organization of academic meetings, research discussions, and industry networking sessions.
- **Scientific Organizing Committees**: Contributed to the Scientific Organizing Committee for Dark Cake Talk and astro-ph talk at the Dark Cosmology Centre, Niels Bohr Institute.

Languages

- English (Fluent)
- Chinese (Native)

Community Service & Volunteer Work

- **Volunteer, Dalian Charity Federation:** Trained team members and coordinated volunteer initiatives.