

# Bowen Xu

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*Place of birth:* Yangzhou, Jiangsu, China \* *Date of birth:* 2002-08-16

## Personal Profile

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**Ph.D. Student**, Major in **Computer Science (CS)**

**Research Interests:** Bandit & (Deep) Reinforcement Learning, Recommendation Systems, Large Language Model, Network Intelligence, Online Learning and Optimization, AI for Science.

**Personal Website:** xubowen0816.github.io/bowen-xu.github.io/.

## Education

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**Virginia Polytechnic Institute and State University (Virginia Tech)**

*Sep 2024 - Jun 2029 (Expected)*

- **Ph.D. Candidate**; Computer Science & Applications Program.

**ShanghaiTech University (Co-Founded by the Chinese Academy of Sciences)**

*Sep 2020 - Jun 2024 (Expected)*

- **Bachelor of Engineering**; School of Information Science and Technology.
- **GPA:** (Graduate courses) 4.0 / 4.0; (Junior) 4.0 / 4.0 (top 1); (Overall) 3.8 / 4.0.
- **Honors:** Outstanding Student (top 3-7%, 2021, 2023), Merit Student (top 7-8%, 2022), Outstanding Graduate.

## Curriculum

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- **Mathematics:** Convex Optimization (Graduate course, A+) / Matrix Computations (Graduate course, A+) / Numerical Optimization (A+) / Mathematical Analysis (A) / Linear Algebra (A).
- **Major:** Reinforcement Learning (Graduate course, A+) / Deep Learning (Graduate course, A) / Online Optimization and Learning (Graduate course, A) / Artificial Intelligence I (A).

## Research Experience

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**At Network Intelligence Center (NICE), ShanghaiTech University, Shanghai, China.**

- **Constrained Personalized Federated Learning** *Apr 2023 - Aug 2024*
- **Constrained GNN Bandit Algorithm with Social Network** *May 2023 - Aug 2024*
- **AI for Science by Deep Reinforcement Learning** *Apr 2023 - Aug 2024*

**At University of Michigan, Ann Arbor, USA.**

- **MaxWeight with Discounted UCB Algorithm** *Oct 2023 - Aug 2024*

**At Virginia Tech, Blacksburg, USA.**

- **Revolutionizing Recommender Systems with LLMs** *Jun, 2024 - Present*

## Honors and Awards

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- **Mathematical Contest in Modeling (MCM):** Honorable Mention(2022).
- **Mathematics Competition of Chinese College Students:** Second(2021), Third(2022) Prize.

## Technical skills

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**Programming Languages/Tools** C, C++, Python(Pytorch), Matlab, L<sup>A</sup>T<sub>E</sub>X, etc.