Wang Xiaotian

University of Science and Technology Beijing · Vehicle Engineering · Junior (3rd year)

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CET-6 480 (competitive for technical reading, oral communication improvement needed)

Photo
(to be inserted)

Areas for growth: spoken English fluency, independent coding capability (without AI assistance), hands-on experience with conventional machining processes. Several project outcomes will be confirmed during this semester/end of year.

Basic Info

Name	Wang Xiaotian
University	University of Science and Technology Beijing
Major	Vehicle Engineering
Year	Junior (3rd year)
Status	Communist Youth League member (Party activist)

Skills

3D CAD:	Proficient in Solidworks (complex assemblies & engineering drawings); skilled in Catia, Inventor
2D Drafting:	Proficient in AutoCAD; ZWCAD Junior Engineer certified
CAE Simulation:	Competent with Ansys static structural analysis & topology optimization
Additive Manufacturing:	Hands-on with TC4 titanium alloy SLM 3D printing; DfAM awareness
Other Tools:	Lightroom (post-processing), CapCut (video editing), AI-assisted coding (VibeCoding)

Projects

Formula Student Team – Brake & Management

Freshm

Led lightweighting of brake components via Solidworks modeling and Ansys topology optimization. Also managed team social media and event promotion. Targeting national second prize in 2025.

- Reduced single component weight by ~[X]% through DfAM and simulation
- Co-managed team outreach and generated technical content for public engagement

Independent Project: Titanium Camera Grip & Arca-Swiss Plate

Recently c

Self-initiated product to improve mirrorless camera handling. Designed, simulated, and manufactured a single-piece grip+plate using TC4 SLM printing. Validated assembly and function.

- Integrated ergonomic grip with Arca-Swiss quick-release into a single titanium part
- Demonstrated full DfAM cycle: design → simulation → print → assembly

Logistics Innovation Competition – Structure Lead

In

Lead design of a smart sorting & transport cart with material recognition. Responsible for feeding, delivery, and ejection mechanisms alongside chassis integration. Utility patent applied.

- Utility model patent application submitted
- Full vehicle structure design from scratch

Change Detection for Camouflage Targets – Researcher

In

Contribute to deep learning-based change detection research. Responsible for data preprocessing and baseline model training. A related paper is under preparation.

- Cross-disciplinary exposure to AI + visual recognition
- Paper in drafting phase

Open Source: Distiller — AI Character Skill Generator

Recently c

Independently designed and built an open-source automation tool that searches the web for any historical figure's public data, distills and integrates it, then generates a ready-to-use AI character simulation Skill package. Published on GitHub (MIT) and skill.sh.

- Full pipeline: disambiguation → web search → distillation → structured Skill (13 modules)
- Open source (MIT), published on GitHub & skill.sh; two sample skills delivered
- Cross-platform: compatible with 5 major AI CLI tools
- Complete bilingual documentation (Chinese & English)

Personal Knowledge Base — Obsidian PKM System

In

Built and maintain a structured personal knowledge management system using Obsidian. Established 8 MOCs, standardized note templates, quality metrics (dead link checks, frontmatter compliance), and weekly/monthly review cadences. The knowledge base serves as cognitive infrastructure for all projects and learning.

- 8 MOCs covering AI Engineering, Vehicle Engineering, Tools, Creation, KM, Campus, Programming, News
- 7 standardized templates: project proposals, paper analysis, daily/weekly briefs
- Regular review cadence: weekly inbox cleanup → monthly status audit → quarterly rule review
- 22+ academic paper analysis notes with structured extraction

Awards & Honors

- 1st Prize (Individual) – Beijing Engineering Drawing Competition (2D)
- 2nd Prize – Beijing Collegiate Physics Competition
- 1st Prize – USTB Smart Car Competition
- 3rd Prize – USTB Drawing Competition (Campus)
- 2nd Prize – USTB Physics Campus Competition
- Expected: National 2nd Prize – 2025 Formula Student China (team)

Campus Activities

· Volunteer Service Center, USTB Youth League – Core Staff

Organize and supervise university-wide volunteer activities.

· BeiKe Shuang Innovation Center, ME College – Core Staff

Assist competition promotion and team management.

· One-on-One VIP Reception - Reinforced Steel Education Conference

Praised for meticulous and considerate service.

· One-on-One Reception – Cross-Strait Education Exchange (Tamkang Univ.)

Demonstrated proactive cross-cultural communication.