# Resume

## Basic Information

* Name: Chen Junhao
* Major: Telecommunication Engineering and Management
* Educational Background: Undergraduate Student (pursuing Bachelor's degree)
* Contact Information: 15739362310

## Educational Experience

### Undergraduate Studies

* Major: Telecommunication Engineering and Management
* Academic Performance: Top 60% of the major, with good average scores in core courses and solid knowledge mastery
* Core Courses: Communication Principles, Signal Processing, Machine Learning, Digital Signal Processing, Computer Networks, Mobile Communications
* Foundation Advantages: Proficient in professional basic knowledge, with skills in mathematical modeling and engineering calculation, which can support work related to intelligent device algorithm design, sensor data processing, and automatic control

## Project Experience

### Autonomous Mobile Car Navigation Project

* Participated in the entire process of car development: From hardware assembly (e.g., installation of ultrasonic sensors and motor modules) to algorithm design and system joint debugging; fully assisted in the demand analysis and function implementation of the path planning module
* Core Responsibilities: Completed hardware debugging of the car (including sensor installation and positioning, actuator parameter calibration); optimized PID control algorithm parameters through multiple rounds of testing, controlling the car's movement deviation within 5%; led the development of the Bluetooth communication module to realize real-time data interaction between the car and the upper computer (e.g., position information, sensor data feedback)
* Achievements & Gains: Helped the team successfully realize the car's navigation goals of stable driving along preset paths and simple obstacle avoidance; mastered the logic of robot hardware assembly and the application of control algorithms through practice, and improved capabilities in system integration, fault diagnosis, and problem-solving

## Course Learning

* Completed Python Programming Courses: Mastered basic syntax (variables, functions, loops, etc.); can write simple code with reference to cases (e.g., batch input of sensor data, basic forward/steering control logic for cars); proactively consolidated knowledge through small after-class exercises (e.g., writing data statistics scripts) and is willing to further improve programming skills in practice
* Learned Algorithms and Data Structures: Focused on understanding path search algorithms (Dijkstra's algorithm, Breadth-First Search) and sorting methods (Bubble Sort, Quick Sort); when encountering difficulties in algorithm logic, proactively consulted teachers or seniors, and mastered core knowledge by drawing flowcharts and reproducing code; capable of independently implementing simple algorithms in code
* Was Exposed to Robot Technology and Autonomous Navigation Systems: Learned the principles of robot navigation (e.g., path planning, environmental perception) and application scenarios of sensors (ultrasonic, infrared) through course experiments; when encountering sensor data deviation during debugging, solved the data fluctuation problem through repeated testing (e.g., consulting module manuals, adjusting sampling frequency)
* Basic English Reading Ability: Can understand basic robot operation manuals and simple technical documents (e.g., sensor datasheets) with the help of translation tools; when encountering professional terminology barriers, supplements knowledge through technical forums and dictionaries to ensure accurate acquisition of key information

## Skills

* Programming Languages: Python (mastered basic syntax; can write code for sensor data preprocessing and basic car control with reference materials or team assistance; when encountering programming errors or logical loopholes, proactively consults classmates or refers to debugging guides to gradually optimize code)
* Algorithm Foundation: Understands basic algorithms and data structures; proficient in path planning-related algorithms (e.g., BFS); can analyze and optimize algorithm efficiency according to actual scenarios (e.g., simple obstacle environments) to reduce redundant calculations
* Robot Technology: Familiar with robot hardware debugging (sensor calibration, actuator wiring and control); mastered the principles of PID algorithms and parameter tuning; once solved hardware compatibility and signal interference problems by adjusting sensor installation height and adding shielding layers, ensuring stable equipment operation
* Development Tools: Familiar with basic operations of programming environments (e.g., PyCharm, such as code editing and breakpoint debugging); understands basic commands of version control tools like Git (e.g., commit, pull); can quickly get started with new tools (e.g., robot simulation software) through official tutorials to adapt to team collaboration needs
* Problem-Solving: Good at breaking down complex tasks into small steps (e.g., decomposing "car navigation failures" into three steps: hardware wiring → sensor data → algorithm logic); can overcome knowledge gaps by consulting technical blogs, course materials, or professionals, with strong problem-solving capabilities

## Personal Traits

* Flexible Thinking: Can propose optimization solutions for complex environments (e.g., multi-obstacle scenarios, such as adjusting path search priority); highly sensitive to optimization points in technical details
* Rigorous and Meticulous: Pays attention to code syntax accuracy and hardware debugging details (e.g., wiring order, parameter values); reduces system failures caused by detail errors to ensure stable and reliable equipment operation
* Team Collaboration: Proactively communicates task progress and difficulties with team members; clarifies work division clearly; is good at listening to others' technical suggestions and promotes the team to achieve goals efficiently with combined personal experience
* Learning Ability: Maintains enthusiasm for new technologies (e.g., robot simulation, simple mapping tools); can quickly understand core usage and apply it to practical tasks to adapt to work needs
* Pressure Resistance: Can maintain focus and work efficiently under short-term tasks (e.g., course project deadlines) or tight schedules to ensure timely task completion

## Learning Interests

* Focuses on autonomous mobile robot navigation technology; focuses on researching path planning strategies, real-time mapping methods, and multi-sensor data fusion technologies; hopes to explore technical principles in depth and apply them to practical scenarios
* Aspires to improve programming and algorithm capabilities by participating in practical projects (e.g., robot development, automatic control tasks); accumulates experience in complex system development and improves technical systems
* Continuously pays attention to technological developments in the field of robot perception and mapping (e.g., simple SLAM technology); is willing to learn advanced solutions in the industry and try to apply and verify them in small projects
* Plans to improve comprehensive capabilities in hardware debugging (e.g., sensor selection and debugging), algorithm design (e.g., control logic optimization), and system integration through course learning and practical operations

## Other Experiences

* Participated in telecommunication engineering-related course experiments and project practices: Including mobile robot control experiments (e.g., car tracking debugging) and sensor data collection projects (e.g., distance data collection); mastered sensor data collection processes, hardware wiring standards, and basic debugging methods in experiments, accumulating engineering practice experience
* Capable of independently completing course assignments and experimental tasks: Once independently designed a simple autonomous tracking car (from hardware assembly to basic code writing); solved debugging problems by consulting materials independently, demonstrating strong self-directed learning and hands-on abilities
* Participated in group project discussions and technical exchanges: In course project teams, proactively shared ideas on path planning and hardware debugging experience; at the same time, absorbed teammates' suggestions on algorithm optimization and code standards, further improving team collaboration and technical analysis abilities

## Self-Evaluation

* Serious and proactive learning attitude; strong sense of responsibility and high execution for assigned tasks (e.g., project development, experimental debugging); can promote work according to plans; maintains a modest attitude when facing unfamiliar technical fields (e.g., application of new sensors) and proactively supplements knowledge gaps through learning
* Possesses clear logical thinking and in-depth problem-analysis abilities; when encountering technical difficulties (e.g., car path deviation), can break down the root cause of problems layer by layer and propose solutions combining theory and practice; at the same time, is good at summarizing experience to improve the efficiency of solving similar problems
* Good team spirit: In collaboration, can clarify personal responsibilities and take on difficult tasks (e.g., hardware debugging, communication module development); is willing to listen to others' suggestions and adjust work methods according to feedback to promote a positive team collaboration atmosphere
* Maintains curiosity about new technologies in the field of robots and automatic control; proactively pays attention to industry trends and technical documents and learns basic usage of cutting-edge tools; when encountering learning bottlenecks, seeks help through multiple channels (e.g., consultation, information retrieval), demonstrating tenacious learning perseverance
* Down-to-earth and steady personality; can remain calm and work efficiently under task pressure (e.g., tight project cycles) or technical challenges; ensures task quality and progress, making it suitable for technical development-related work