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# Zixuan He

[zixuanhe921@outlook.com](mailto:zixuanhe921@outlook.com) | (86)-18951396829

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## SUMMARY

In addition to the basic courses of my major, I also strive to pursue courses related to deep learning. Three years in my mentor's lab, with teamwork, self-directed learning, and gradually improving leadership skills.

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## EDUCATION

**Nanjing University of Finance and Economics** Junior undergraduate, Computer Science and Technology

- GPA: 3.55
  - An EI meeting using Yolov5
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## COMPETITION EXPERIENCE

**17th National College Students' Smart Car Competition**  
2023

**October 2022 - January**

**the lead person in charge**

**Nanjing China**

- Designed and developed an unmanned vehicle utilizing computer vision, sensing technology and positioning systems. Combined with 5G network communication systems, it allows for faster and more reliable communication between the vehicle and remote control.
- Oversaw the team's progress, managed tasks, coordinated team members, and ensured that our projects met competition deadlines.
- Won the first prize of the state.

**China National Undergraduate Computer Design Competition**

**March 2022 - August 2022**

- Achieved correct identification of the color and type of lane lines, as well as road signs, zebra crossings, and red and green on main roads.
- Combines the LaneNet structure and Yolov5.
- Won the third prize of the national level.

**MCM/ICM**

**February 2022**

- Analyze the topic, select the model with teammates and write a thesis.
  - Master thesis typesetting, paper language use, and basic models.
  - Received Honorable Mentions.
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## PROJECT EXPERIENCE

**Innovation and entrepreneurship training program for college students**

**April 2022 - present**

- Studied the crowd density counting structure based on DecideNet algorithm in congested scenarios.
  - Attempted to replace the Euclidean distance based convolutional neural network model with void convolution and structural similarity loss, and studied the performance of RegNet block and DetNet block algorithms in the improved DecideNet mode.
  - establish a project at the school level successfully.
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## INTERNSHIP EXPERIENCE

**On-line AR in Professor Ming Xu's lab at Carnegie Mellon University**

**April 2023 - present**

- Read papers on the diffusion model in 3D and communicate regularly with my mentor.
- Study the code for the direction of stable diffusion.
- Preparing for publication in September

**Siyang Weixiang Culture Media Co.Ltd**

**December 2022-February 2023**

- Learned skills in image processing and maintained software systems.
- Assist leaders in data processing.
- Obtained experience in debugging code and analyzing structures from previous generations.

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## AWARD & CERTIFICATE

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| • National First Prize of National College Student Smart Car Competition                             | <b>January 2023</b>  |
| • The third prize of the national level unmanned driving challenge in the China Robotics Competition | <b>August 2022</b>   |
| • MCM/ICM received Honorable Mentions  | <b>February 2022</b> |
| • Third Prize in the 11th APMCM Asia Pacific University Mathematical Modeling Competition            | <b>January 2022</b>  |
| • Provincial Third Prize of the 19th May 1st Mathematical Modeling Competition                       | <b>May 2022</b>      |
| • Excellent University of Nanjing University of Finance and Economics                                |                      |
| • County Excellent Volunteer   |                      |

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## SKILLS & ACTIVITIES

- Awarded the title of excellent volunteer by the government method.
- Won the honor of school scholarship, quality development scholarship and outstanding college student and excellent class leader.
- Volunteer trip alone for half a month.
- Participated in the school volunteering section.
- enjoy playing badminton, am interested in gongbi drawing, and occasionally practice jazz.