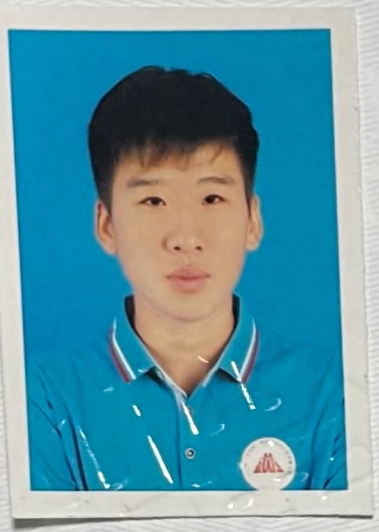

中华人民共和国
居民身份证
签发机关 渭南市公安局临渭分局
有效期限 2020.08.10-2030.08.10
姓名 周延霖
性别 男 民族 汉
出生 2002 年 9 月 10 日
住址 陕西省渭南市临渭区仓程路13号
公民身份号码 610502200209100812



学号 2013921

姓名 周延霖 性别 男

类别	普通全日制本科		
学号	2013921		
姓名	周延霖		
性别	男	出生日期	2002.09.10
学院	电子信息与光学工程学院		
专业	电子信息特色班		
校内住地	学6·06-215		
发证单位	教务处		
发证日期	年 月		

Research Statement

Zhou Yanlin

Over the past three years, I have gained a strong foundation in information security through my undergraduate studies. However, I have also developed a keen interest in artificial intelligence and robotics. In addition to completing the required courses for my major, I have taken courses such as Introduction to Artificial Intelligence and Machine Learning and Application, where I have achieved excellent results. Through these courses, I have gained knowledge of cutting-edge technologies, including deep learning, reinforcement learning, and natural language processing.

Furthermore, my strong background in mathematics has given me the analytical skills necessary for success in these fields. During high school, I won several prizes in mathematics contests, and in college, I consistently scored full or near-full marks in all math-related courses. I possess excellent math thinking and computing skills, which have been invaluable in my pursuit of knowledge in these fields. In addition to my coursework, I have gained research experience in a laboratory setting. Through the experience, I have honed my skills in reading and interpreting academic papers.

Research experience

During my sophomore year, I had the opportunity to participate in research at our college's data security joint laboratory. I worked on the "Enclave Storage Engine for Practical Databases" project, which aims to achieve true encrypted storage in the cloud to protect privacy in the era of big data. Through an extensive literature review, I gained knowledge of concepts related to searchable encryption, SGX, and secure data computing.

In my work, I was mainly responsible for debugging the operation of opengauss and implementing data encryption on the client side. Through this experience, I gained valuable insights into the challenges and opportunities in the field of data security. I believe that privacy protection will continue to be a crucial aspect in the rapidly developing field of artificial intelligence, and I am eager to explore this topic further in my research.

During my junior year, I had the opportunity to conduct research at the Institute of Artificial

Intelligence at our university. Specifically, I worked on a project focused on the development of humanoid double-wheeled legs. Through this experience, I gained proficiency in the use of the Robot Operating System (ROS) and further developed my coding skills to effectively operate the robots. I am excited to explore further the intersections of information security, artificial intelligence, and robotics. I believe that my experience in these fields, combined with my dedication to research and willingness to learn, make me a strong candidate for the summer camp at ShanghaiTech University.

During the summer following my sophomore year, I had the opportunity to intern at China Soft International, where I worked on a project focused on License Plate Occlusion Detection and License Plate Recognition System. As the development manager, I was responsible for implementing and optimizing the model.

In the early stages of the project, I utilized TensorFlow to implement the LeNet neural network. Through further research, I gained a deeper understanding of related technologies such as RNN, LSTM, and CRNN, which I ultimately used to develop a recurrent neural network for detection. Through this project, I acquired a wealth of knowledge related to neural network algorithms.

My experience at China Soft International not only provided me with valuable technical skills but also allowed me to gain hands-on experience in a professional setting. I collaborated with colleagues from diverse backgrounds and developed strong communication and problem-solving skills.

As part of my studies in "Machine Learning and Applications," I completed a project on "Handwritten Digit Generation Based on VAE." I used the PyTorch framework to implement a standard VAE and then used TensorFlow in combination with DCGAN to generate more realistic handwritten digits.

In addition, during the course "Introduction to Artificial Intelligence," I gained a general understanding of various aspects of intelligent technology. At the end of the course, I studied papers related to image super-resolution and learned how to construct technology for enhancing image resolution that produces results closest to the original high-resolution image.

These projects gave me hands-on experience with machine learning and artificial intelligence and helped me further develop my programming skills.

Research interests

My primary interest lies in the field of robotics. During my freshman year, I focused on hardware microelectronics. However, in my sophomore year, my passion for algorithms grew, and I became less interested in traditional software design. Consequently, I switched to information security and learned about cryptography and network attack and defense.

However, with the emergence and power of ChatGPT, I realized that the software era is coming to an end, and even my security major is not immune. It made me recognize that combining software and hardware is what humans and I should excel at. I possess strong coding skills that enable me to quickly implement related applications for physical operations.

Therefore, in my future graduate studies, I intend to focus more on researching fields related to robotics to achieve true success. Robotics research requires a diverse skill set, including knowledge of computer science, electronics, and mechanical engineering. I believe that my interdisciplinary background and passion for robotics would enable me to make significant contributions to the field.

Future research planning

During my senior year of study, I plan to concentrate on the latest advancements in intelligent technology and immerse myself in the literature related to my field of study to gain cutting-edge knowledge. I aim to participate in experiments conducted by relevant research groups to combine my theoretical knowledge with practical application. Additionally, I will continue to improve my thesis writing and English proficiency to ensure that I can publish high-level SCI papers during my master's studies. By doing so, I will enhance my research skills and contribute to the advancement of the field of information security.

Throughout my undergraduate studies, I have developed a passion for intelligent technology and gained valuable scientific research experience and skills. As a result, I have a solid foundation in scientific research. After conducting extensive research and consulting with professional mentors, I discovered that your supervisor's research in this field had had a profound impact, achieved numerous important results, and won several prestigious awards both domestically and internationally. I am impressed by the strong research atmosphere at your institution, and I believe that it can provide me with the opportunity to delve deeper and gain a better understanding of the field.

My plans for the future involve developing my career in Beijing, where I can access abundant practical opportunities to integrate knowledge with practice, gain a better understanding of my profession, and map out my future development direction. If given the chance to attend your summer camp, I am committed to pursuing a doctoral degree after completing my master's degree. I plan to devote myself to a specific field for an extended period, achieve significant academic accomplishments, and contribute significantly to the field.

个人陈述

一、自我认识

我对人工智能领域充满热忱，这源于自己一直对数学方面的应用抱有极大兴趣。自高中起，参加多项数学竞赛，业余时间经常在网络上查询关于人工智能、自然语言理解、密码学等方面的资料，在大一的假期里自学完了《统计学习方法》，并成功地复现了相关公式。未来，我希望有机会在人工智能领域的科研工作中实现一些个人价值。

二、研究方向思考及动机

在过去的三年里，我通过本科学习在信息安全方面打下了坚实的基础。然而，我也对人工智能和机器人产生了浓厚的兴趣。除了完成本专业的必修课外，我还选修了《人工智能导论》、《机器学习与应用》等课程，并取得了优异的成绩。通过这些课程，我获得了前沿技术的知识，包括深度学习、强化学习和自然语言处理等方面。

在我大三的时候，我有机会在我校机器人与信息自动化研究所进行研究。具体来说，我参与了一个专注于开发人形两轮腿的项目。通过这次经历，我熟练地使用了机器人操作系统（ROS），并进一步发展了我的编码技能，以有效地操作机器人。我很高兴能进一步探索信息安全、人工智能和机器人技术的交叉点。我相信，我在这些领域的经验，加上我对研究的执着和学习的意愿，使我成为**上海科技**大学夏令营的有力候选人。

我的主要兴趣在于机器人领域。大一期间，我专注于硬件微电子。然而，在我大二的时候，我对算法的热情越来越高，对传统软件设计的兴趣也越来越小。因此，我转向了信息安全，学习了密码学和网络攻击与防御。然而，随着 ChatGPT 的出现和强大，我意识到软件时代即将结束，即使是我的安全专业也不能幸免。这让我认识到，软件和硬件的结合是我和人类应该擅长的。我拥有强大的编码技能，能够快速实现物理操作的相关应用程序。机器人研究需要多种技能，包括计算机科学、电子和机械工程知识。我相信，我的跨学科背景和对机器人的热情将使我能够在该领域做出重大贡献。

三、未来发展规划

在本科阶段的末端，我将为人工智能和英文方面投入更多精力，同时开始报一些科研学术的课程，为硕士期间的基本科研能力做一些准备。如果贵所提供机会，我有决心在硕士毕业后继续攻读博士学位，长期深入研究人工智能的相关领域，寻找到属于自己的机会点，并尽己所能为该领域做贡献。更遥远的未来方面，就工作选择而言，人们的选择和活法很多，公务员、教师、创业等等，但我对自己的规划相对清晰和坚定——“在研究领域有所突破”，是我最想向子孙后代炫耀的事。

Yanlin Zhou

13220030100 | 2013921@mail.nankai.edu.cn

EDUCATION

Nankai University Sep 2020 - Jun 2024

Information security Bachelor Cyberspace Security Academy Tianjin

- **GPA:**3.81/4
- **Related courses:** Introduction to Artificial Intelligence (96), Machine Learning and Application (100), Network Technology and Application (94), Computer Network (88), Big Data Computing and Application (89), etc
- **Honorary Awards:** Public Scholarship (2021-2022), Academic Excellence Scholarship (2020-2021)
- **English:** CET-6 (527), IELTS (6)

RESEARCH EXPERIENCE

Enclave storage engine for utility databases Nov 2021 - Present

Joint Laboratory for Data Security

- Under the guidance of my supervisor, I have extensively reviewed literature to gain a deep understanding of related concepts, including searchable encryption, SGX, and dense data computation.
- With the guidance of my teacher, I was able to successfully replicate the B+tree storage structure outlined in the paper. Additionally, I simulated the buffer management and disk data storage management interfaces of the storage engine.
- I configured the OpenGauss database in the Ubuntu environment and integrated the OPE (order preserving encryption algorithm) and SSE (searchable symmetric encryption algorithm) into the source code of OpenGauss.
- I have previously gained knowledge and experience in the implementation of UDFs in databases. I have also successfully incorporated enclage into UDFs, creating an external interface.

Humanoid two-wheeled legged robot Sep 2022 - Present

Institute of Robotics and Information Automation

- I have received training on ROS1 and ROS2 (Robot Operating System) from Teacher Gu Yueju, and have gained hands-on experience by performing practical operations on both simulated environments and real robots.
- I actively took part in assembling the robot's legs, motor, and skeleton, and also modeled the necessary components for the robot. To bring the design to life, I utilized a 3D printer to produce the physical entity.
- I successfully established communication between the Bluetooth module on my mobile phone and the robot, allowing for more efficient robot movement control by replacing the original handle operation. My main responsibilities included network communication, protocol design, and interpreter writing.

COMPETITION

National Cryptographic Technology Competition (Captain) Aug 2022 - Dec 2022

- **Project Description:** I led a team in implementing a frequency hiding and sequential encryption scheme for lightweight client storage. My primary responsibility was to write the code for the encryption function, which included adding, deleting, modifying, and querying data. Finally, I tested the code in a virtual machine environment to ensure its effectiveness.
- **Team Responsibilities:** I was responsible for brainstorming and proposing innovative ideas, recruiting team members, creating a detailed project plan, and writing a comprehensive design report for the project.

Tianjin University Student Information Security Network Attack and Defense Competition (Captain) Sep 2022 - Nov 2022

- My primary responsibilities were focused on web attack and defense, as well as miscellaneous tasks. In the final competition, I successfully scored two questions, which contributed to our team's overall success in winning the third prize.

PROFESSIONAL EXPERIENCE

Shenzhen Tencent Computer System Co., Ltd Jul 2022 - Sep 2022

Operations intern Beijing

- My main responsibilities included optimizing front-end pages and processing and categorizing data obtained from the backend.
- I possess extensive experience in creating pertinent documentation and conducting information retrieval and data organization.

Beijing Zhongruan International Information Technology Co., Ltd Jan 2022 - Mar 2022

Development intern Beijing

- I was involved in a project focused on license plate occlusion detection and license plate recognition system, where I served as the development manager. My primary responsibilities included overseeing the project's implementation and optimizing the model to ensure its efficacy.

PERSONAL ABILITY

- **Mathematics:** Since high school, I have actively participated in numerous math competitions and achieved several awards. In addition, I have consistently excelled in courses related to mathematics throughout my university studies, often earning full or near-perfect marks.
- **Code:** I possess advanced proficiency in various programming languages, including C++ and Python. Through my coursework, such as Compilers, Techniques, and Tools and operating systems, I have honed my ability to develop high-quality programming projects.
- **Algorithm:** Through internships and several courses focused on intelligent technology, I have acquired extensive proficiency in a wide range of artificial intelligence algorithms.

周延霖

13220030100 | 2013921@mail.nankai.edu.cn

教育经历

南开大学 2020年09月 - 2024年06月

信息安全 本科 网络空间安全学院 天津

- **成绩：**GPA(3.81/4)，平均学分绩(90.28/100)，专业第五(5/55)
- **相关课程：**人工智能导论(96)、机器学习及应用(100)、网络技术与应用(94)、计算机网络(88)、大数据计算及应用(89)等
- **荣誉奖项：**公能奖学金(2021-2022)、学业优秀奖学金(2020-2021)
- **英语：**六级(527)、雅思(6)

研究经历

面向实用数据库的Enclave存储引擎 2021年11月 - 至今

数据安全联合实验室

- 在导师的指导下阅读大量文献，了解关于可搜索加密、SGX与密态数据计算等相关概念
- 在师姐的带领下复现论文中的B+树存储结构，并模拟存储引擎的缓冲区管理与磁盘数据存储管理接口
- 在Ubuntu环境下配置opengauss数据库，并将ope（保序加密算法）和sse（可搜索对称加密算法）写入到opengauss的源码中
- 了解并学习数据库中的udf实现，并将enclage封装成udf形成一个对外的接口

仿人双轮腿机器人 2022年09月 - 至今

机器人与信息自动化研究所

- 学习古月居老师讲授的ROS1和ROS2(机器人操作系统)，并在仿真环境和真正的机器人中进行实际操作，目前已能熟练使用ROS进行机器人的模型构建和开发功能
- 参与机器人的腿部、电机及骨架等的组装，并对机器人需要的部件进行建模，利用3D打印机获取实体
- 实现手机蓝牙模块与机器人的通讯，替代原有的手柄操作，并可以实现相关机器人运动的指令，在其中负责网络通讯、协议的设计以及解释器的编写

竞赛

全国密码技术竞赛（队长） 2022年08月 - 2022年12月

- 项目内容：带领团队实现轻量级客户端存储的频率隐藏保序加密方案，主要负责对增删改查的加密功能的代码实现以及最后在虚拟机的环境中进行测试
- 队内职责：提出创意，招募团队，制定计划，撰写作品设计报告

天津市大学生信息安全网络攻防大赛（队长） 2022年09月 - 2022年11月

- 负责web攻防和misc杂项，在决赛中攻下两题并最终带领团队取得三等奖

实习经历

深圳市腾讯计算机系统有限公司 2022年07月 - 2022年09月

运营实习生 北京

- 负责前端页面的优化以及对后端获得数据的处理分类
- 撰写相关的文档并进行信息检索和资料整理

北京中软国际信息技术有限公司 2022年01月 - 2022年03月

开发实习生 北京

- 参与车牌遮挡检测和车牌识别系统的项目，作为开发经理，主要负责项目实施和模型的优化

个人能力

- **数学方面：**自高中起，参加多项数学竞赛并获奖，在大学与数学相关的课程中均取得满绩或满分的成绩
- **代码方面：**熟练掌握C++、python等语言，并在编译原理、操作系统等课程中培养出了高质量编程项目的能力
- **算法方面：**经过实习以及多个有关智能技术的课程，熟练掌握大部分人工智能算法

南開大學 Nankai University

本科生学生成绩单

姓名：周延霖	学号：2013921			入学年月：2020.09	学制：4年		
学院：网络空间安全学院				专业：信息安全			
课程名称	成绩	学分	绩点	课程名称	成绩	学分	绩点
2020-2021学年第1学期				健康教育	91.4	1.5	4.0
高级语言程序设计2-1	86	3.5	3.7	篮球初级	88	1.0	3.7
基础英语 I B	86	2.5	3.7	数据结构	91	3.5	4.0
军事技能训练	92	2.0	4.0	数字逻辑	83.8	3.5	3.3
流行音乐赏析与实践	99	2.0	4.0	西非音乐赏析——非洲鼓基本演奏	通过	1.0	/
思想道德修养与法律基础	84	2.5	3.3	信息安全前沿技术	91	1.0	4.0
线性代数	97	4.0	4.0	中国近现代史纲要	82	2.5	3.3
一元函数积分（信）	91	3.0	4.0	2021-2022学年第2学期			
二元函数微分（信）	100	3.0	4.0	大数据计算及应用	89	2.0	3.7
足球初级	86	1.0	3.7	大学生职业发展与就业指导	通过	2.0	/
2020-2021学年第2学期				高级英语 II	88	2.0	3.7
场论与无穷级数（信）	100	3.0	4.0	胡芦丝演奏与提高	通过	2.0	/
大学基础物理实验	83	2.0	3.3	计算方法	90	2.0	4.0
大学物理学（一）	91	4.0	4.0	计算机组成原理	85	3.5	3.7
电路基础	87	3.5	3.7	毛泽东思想和中国特色社会主义理论体系概论	85	3.5	3.7
电子仪器仪表使用	90	0.5	4.0	排球初级	95	1.0	4.0
多元函数微积分（信）	97	3.0	4.0	人工智能导论	96	2.5	4.0
高级语言程序设计2-2	80	2.5	3.0	软件安全	90	2.5	4.0
基础英语 II B	85	2.5	3.7	数据库系统	88	3.5	3.7
军事理论	91	2.0	4.0	算法导论	90	3.5	4.0
马克思主义基本原理概论	84	3.5	3.3	信息安全数学基础	98	3.5	4.0
游泳初级	88	1.0	3.7	2022-2023学年第1学期			
专业认知导引	通过	1.0	/	编译系统原理	91	3.5	4.0
2021-2022学年第1学期				操作系统	90	3.5	4.0
Java语言与应用	90	2.5	4.0	大学语文	90	2.0	4.0
概率论与数理统计	94	4.0	4.0	恶意代码分析与防治技术	96	2.5	4.0
高级英语 I	79	2.0	3.0	机器学习及应用	100	2.5	4.0
海洋与人类文明	87	2.0	3.7	计算机网络	88	3.5	3.7
汇编语言与逆向技术	92	2.5	4.0	密码学	92	3.5	4.0
**********				**********			

成绩证明 专用章

打印日期：2023-04-24

南開大學 Nankai University

本科生学生成绩单

姓名：周延霖	学号：2013921			入学年月：2020.09	学制：4年		
学院：网络空间安全学院				专业：信息安全			
课程名称	成绩	学分	绩点	课程名称	成绩	学分	绩点
实习实训	88	2.0	3.7				
网络技术与应用	94	2.5	4.0				
习近平新时代中国特色社会主义思想概论	91	2.0	4.0				
...以下空白							
已获得学分：140.0				平均学分绩：90.28/100 平均学分绩点：3.81/4			

成绩证明 专用章

打印日期：2023-04-24

证 书

周延霖 同学：

荣获南开大学 2021-2022 学年度

公能奖学金。

特此颁证，以资鼓励。

南开大学

2022 年 10 月

NO:20220574

网络空间安全学院

全国大学英语六级考试
成绩报告单

CET®

姓　　名：周延霖

学　　校：南开大学

院　　系：网络空间安全学院

身份证号：610502200209100812

笔　试

准考证号：120017221203301

考试时间：2022年9月

总分	听力 (35%)	阅读 (35%)	写作和翻译 (30%)
527	169	214	144

口　试

准考证号：--

考试时间：--

等级	--

成绩报告单编号：221212001005531

教育部教育考试院

证书专用章

11010210047228

校验码：SI8P ASRV NY6F 3OGQ

说　明

1. 全国大学英语四、六级考试（CET）是由教育部主办的全国统一考试，考试对象为在校大学生。考试内容涵盖听、说、读、写、译等语言技能。
2. CET笔试考试时间为每年6月和12月，CET口试考试时间为每年5月和11月。
3. 考生可登录中国教育考试网（www.neea.edu.cn）查询、下载电子成绩报告单或自行办理纸质成绩证明。电子成绩报告单、纸质成绩证明与纸质成绩报告单同等效力。

南开大学网络空间安全学院

学 分 绩 证 明

周延霖 系本学院 2020 级 信息安全 专业学生，学号 2013921 ，该生 前五学期 的 必修专选（ABCD） 课程学分绩为 90.18 ，本专业内排名为 5 ，专业总人数为 55 。

特此证明。

签 章：

时 间：2023 年 4 月 26 日

证 书

周延霖 同学：

荣获南开大学 2020-2021 学年度
学业优秀奖学金。

特此颁证，以资鼓励。

南开大学
2021 年 11 月

NO:20210630

电子信息与光学工程学院

荣誉证书

HONORARY CREDENTIAL

南开大学

王天鹏、运开、聂志强、周延霖 同学：

在 2022 年天津市大学生信息安全网络攻防大赛中荣获三等奖。

指导教师：贾岩

特发此证，以资鼓励。

天津市教育委员会

二〇二二年十二月

IELTS™

Test Report Form

ACADEMIC

NOTE *Admission to undergraduate and post graduate courses should be based on the ACADEMIC Reading and Writing Modules. GENERAL TRAINING Reading and Writing Modules* ***are not*** *designed to test the full range of language skills required for academic purposes. It is recommended that the candidate's language ability as indicated in this Test Report Form be re-assessed* ***after two years*** *from the date of the test.*

Centre Number	CN901	Date	08/APR/2023	Candidate Number	302043

Candidate Details

Family Name	ZHOU
First Name	YANLIN
Candidate ID	610502200209100812
Date of Birth	10/09/2002
Sex (M/F)	M
Scheme Code	Private Candidate
Country or Region of Origin	CHINA (PEOPLE'S REPUBLIC OF)
Country of Nationality	
First Language	CHINESE

Test Results

Listening	Reading	Writing	Speaking	Overall Band Score	CEFR Level
6.0	6.5	6.0	5.5	6.0	B2

Administrator Comments

idp Education Pty Ltd

Centre stamp

BRITISH COUNCIL EXAMINATIONS SERVICES CHINA

Validation stamp

IELTS

Administrator's Signature

Date 10/04/2023

Test Report Form Number 23CN302043ZHOY901A

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