Yifei Zhang

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[Personal website] | [github]

Introduction

Currently an undergraduate in the College of Computer Science, Nankai University, class of 2026.

My research interests include cyber security/information security, and cryptology, with a specified focus on password security and authentication.

Publications

• EditPSM: A New Password Strength Meter Based on Password Reuse via Deep Learning Yifei Zhang, Zhenduo Hou, Yunkai Zou, Zhen Li, Ding Wang In Proc. INSCRYPT 2024, (CCF Rank C), Best paper runner up. [PDF] [video]

Awards

- Cryptology National Contest 2024, China (Held by CACR). Finalist, National Second Prize.
- Contemporary Undergraduate Mathematical Contest in Modeling, National contest 2024, China. Second Prize (Tianjin).

English Language Proficiency

- IELTS, March 2025 (First-time test taker)

 Overall band score 8.5/9 (Reading 9/9, Speaking 8.5/9, Listening 8.5/9, Writing 7/9)
- CET 6, summer 2023 (As a freshman). 657/710
- One-year Exchange Student, Horace Mann Elementary Iowa City, IA, USA

Aug 2014 – Aug 2015

Education

Nankai University, BE in Computer Science

Sept 2022 - May 2026

• GPA: 3.61/4.0

Experience

Exchange Student, Horace Mann Elementary - Iowa City, IA, United States

Aug 2014 - Aug 2015

• My mom served as visiting scholar under visa J1. I went along as student under visa J2.

Student Intern, Research Assistant, CryptoSysLab – Nankai University

Sept 2023 - Now

- Directed by Prof. Ding Wang.
- Mentored by Prof. Ding Wang and Dr. Zhenduo Hou (Postdoc).
- Published one paper as the first author in CCF-C conference.
- Participation in several published CCF-A conference papers.

Student Intern - 360 Security

June 2024 - July 2024

• Summer student intern, with a rating of 96/100 given by my supervisor.

Teaching Assistant – Parallel Programming

Jan 2025 - July 2025

• Since I ranked #1 for this course in Spring 2024, I was selected as TA for Spring 2025. Parallel Programming is a mandatory course for CS majors in Nankai University.

Projects

Universe Simulator (May, 2023)

Github repo link: [code]

- Simulates the behavior of multiple civilizations, with population growth, military power, warfare, diplomacy, etc.
- Graphic interface designed with QT in C++.
- Course project for "Program Design with Advanced Programming Language". Ranked #1 in the College of Computer Science.

Chinese Rumor Detection (Dec. 2023)

Github repo link: [code]

- Detects Chinese rumor with Bayesian classifier, SVM, Random Forest, MLP, RNN, CNN, and BERT.
- Course project for "Programming with Python", final score: 96/100.

Accelerating Edit Distance Calculation Using Parallel Programming (June, 2024)

Github repo link: [code]

- Accelerated edit distance calculation using SIMD, pthread, openMP, MPI, and CUDA.
- Course project for "Parallel Programming", final score: 97/100, Ranked #1 in the College of Computer Science.

Fluid Simulation in 2D and 3D (Dec, 2024)

Github repo link: [code]

- Simulation of fluid behavior in 2D and 3D.
- Course project for "Computer Graphics", final score: 100/100, Ranked #1 in the College of Computer Science.

Improving Neural Machine Translation Using Retrieval and Data Augmentation (Dec, 2024)

Github repo link: [code]

- Enhances the performance of Neural Machine Translation models using KNN-Retrieval and Data Augmentation simultaneously.
- Course project for "Natural Language Processing", final score: 96/100.