



浙江大学 计算机科学与技术学院
COLLEGE OF COMPUTER SCIENCE AND TECHNOLOGY
ZHEJIANG UNIVERSITY

个人介绍

2024 Spring

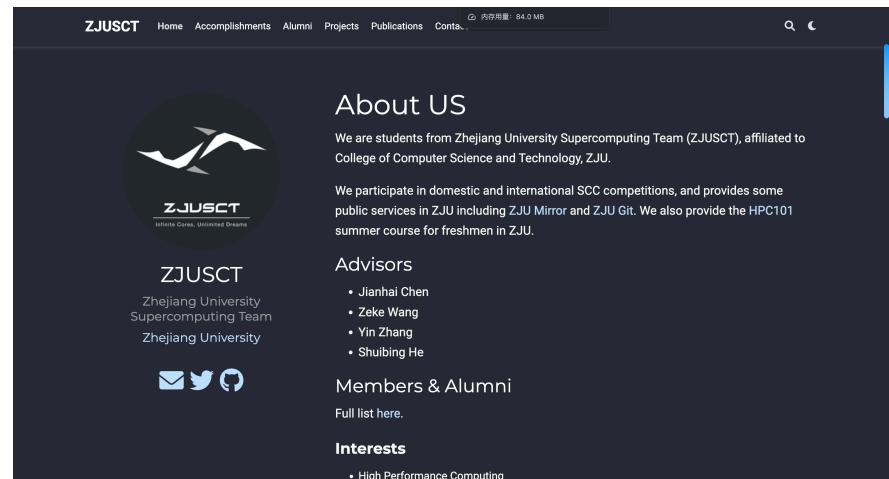
By 混合 2207 杜宗泽

2024.3.15

Part.1 个人背景

自我介绍

各位老师好，我是杜宗泽，混合 2207 团支部的团支书。
我还是浙江大学超算队（ZJUSCT）的一员。



The screenshot shows the homepage of the Zhejiang University Supercomputing Team (ZJUSCT) website. The header includes the team's logo, a circular emblem with two birds in flight, and the text "ZJUSCT" and "Infinite Core, Unlimited Dreams". Below the header, there are navigation links for Home, Accomplishments, Alumni, Projects, Publications, and Contact. A search bar and a user icon are also present. The main content area features sections for "About US", "Advisors", "Members & Alumni", and "Interests". The "About US" section describes the team as students from Zhejiang University's College of Computer Science and Technology, mentioning their participation in SCC competitions and providing services like ZJU Mirror and ZJU Git. The "Advisors" section lists four names: Jianhai Chen, Zeke Wang, Yin Zhang, and Shuibing He. The "Members & Alumni" section has a link to a full list. The "Interests" section lists "High Performance Computing".

在浙江大学超算队，我积极参与各种科研项目和竞赛，不断提升自己的技术能力和团队合作能力，同时也认识到一群非常优秀的同学。

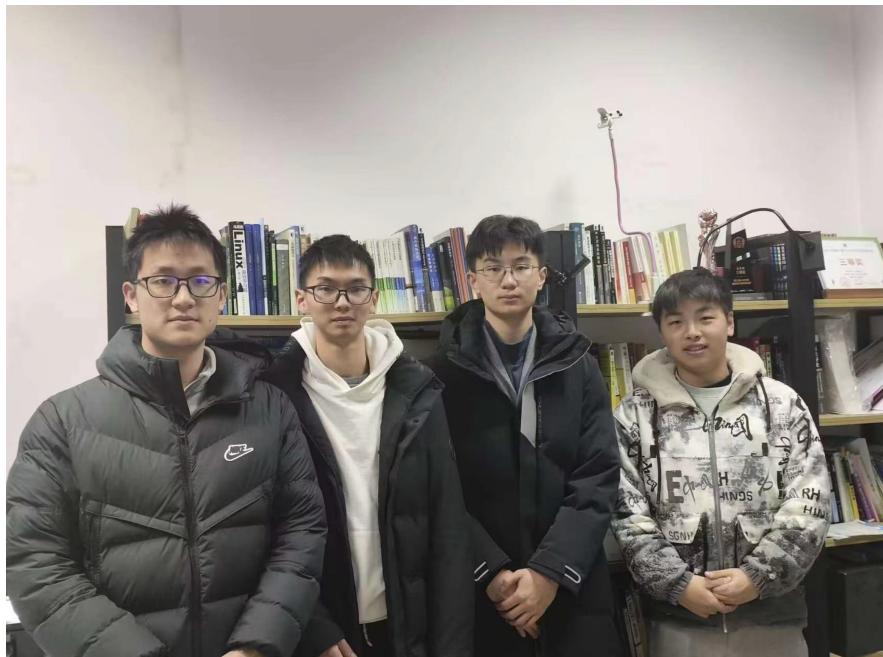
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我们也在最近的 ASC（世界大学生超算竞赛初赛）中取得了二等奖的好成绩，也将在四月初跟队一起去上海参加决赛。

ASC24 Student Supercomputer Challenge Preliminary Result Announcement

ASC

详情



Dear ASC24 teams:

We highly appreciate the remarkable efforts you have put into your proposals. Each of you has demonstrated a deep understanding of the supercomputing technologies and exceptional talent in application optimization. There is no doubt that all of you are winners of the preliminary stage.

Many teams have impressed us with their outstanding performance. To encourage more excellent teams to participate in ASC, after due consideration, we host 25 teams for the final stage of ASC24. The selection process has been a tough challenge for the Evaluation Committee, as all of you are competitive candidates. After a long and careful evaluation, the ASC24 Student Supercomputer Challenge Committee selected **the following teams to qualify for the ASC24 Finals:**

我的朋友们

同样，我认为大学的生活不应当仅局限于学术，我也积极参与各种社团活动，结交了一群志同道合的朋友。

大一我在团委学研和全媒体视觉担任干事。在这里，我深切感受到青年之热情，并且学习了很多摄影技巧。

大二我在全媒体国际化部门，想要更进一步锻炼自己的英语技巧。



生活与我

当然，个人生活于我而言是十分重要的一环。 我会在天气好的适合和朋友一起去游山玩水。 我也会在闲暇时阅读填充自己。
每周我会健身 2-3 次，也会去三两好友打斯诺克^⑧。

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26 11月



冬季秋日

小河直街真的又小又
直哈哈哈哈...



昨日 灵隐

打不上车真的太悲痛
了！负重跑完了整...



11-13 苏堤

(当时回来偷懒了，
补发下照片哈😊)



欲买桂花同载酒
终不似 少年游

05 11月



十一月的风夹杂着秋
雨敲得落叶满地
空气中咸腥潮湿的...



预告



Part.2 科研经历与规划

初窥技能拾遗小老师

在上学期，我参加了计算机学院朋辈辅学计划，和王淳一起担任了《技能拾遗》课程的小老师。

在教学的过程中也夯实了自己的知识，也萌生了对于教育的兴趣。

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「实用技能拾遗」课程前瞻

2023 fall 计算机学院朋辈辅学课程

By yaoyaoling Thorin

2023.10.14

申明：本课 PPT 是在 @TonyCrane 老师前作的基础上，大家可以多去逛逛大佬们的博客（逃

Yaoyaoling's notebook

Home ZJU-CS Missing semester Online CS Courses AI Language English Scientific research Spark in life

Welcome to Yaoyaoling's notebook

Table of contents 前言

前言

这是一个用于记录自己计算机学习生涯的一个笔记本。会不定期的更新里面的内容。每个板块具体的内容可以分别点击进去会有总体的介绍。当然你也可以通过搜索来找到你想要的资源。希望该笔记对大家能有所帮助。

如果里面的内容大家有补充说明的地方，欢迎和笔者沟通：Duzz816@163.com 或者提交Issue。

感谢每一位我所遇见的浙大学长同学的帮助，以及csdiy对我的指导。我也会根据我的学习过程把一些好的重要的网站放在我的笔记里。

▲ Latex渲染问题

由于某些原因（自己还没搞明白），在github上的latex渲染有时候会出现问题。大家可以重新刷新网页即可获得渲染。

List

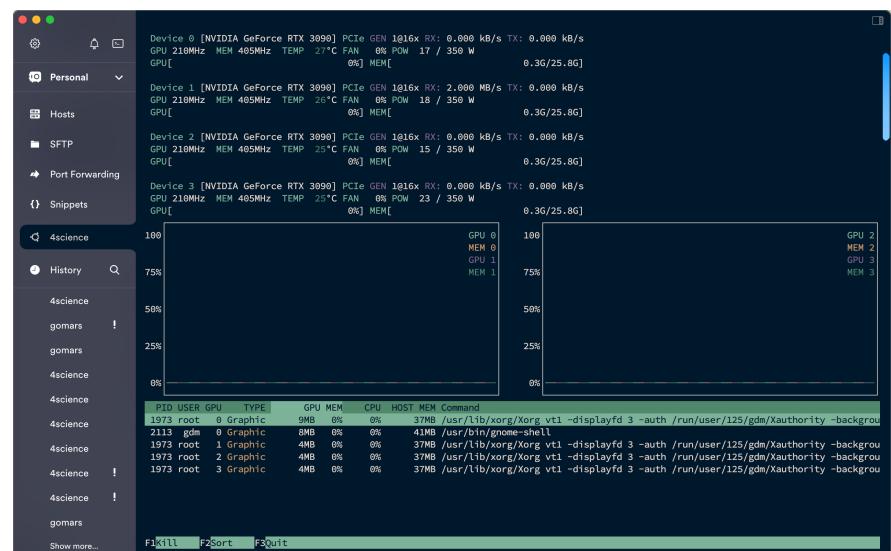
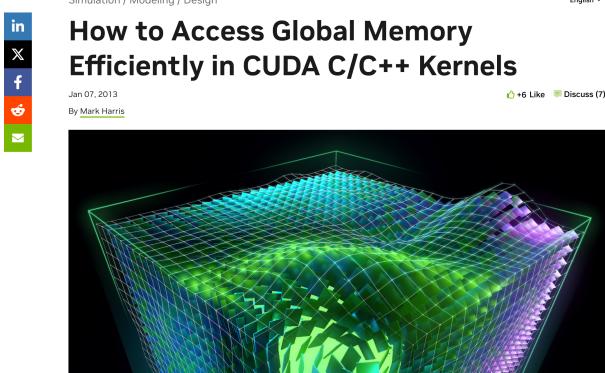
- 哈哈哈哈哈哈哈哈，真的意识到想做的事情好多，但....心力憔悴
- CUDA 和 CuTe
- 论文阅读以及部分科研体验
- ZJUCST(浙江大学超算队) ASC
- 大二下学期的课程学习

科研准备

很庆幸自己大一暑假在超算队三个月的磨砺。（当然也让我初窥计算机硬件的奥秘）

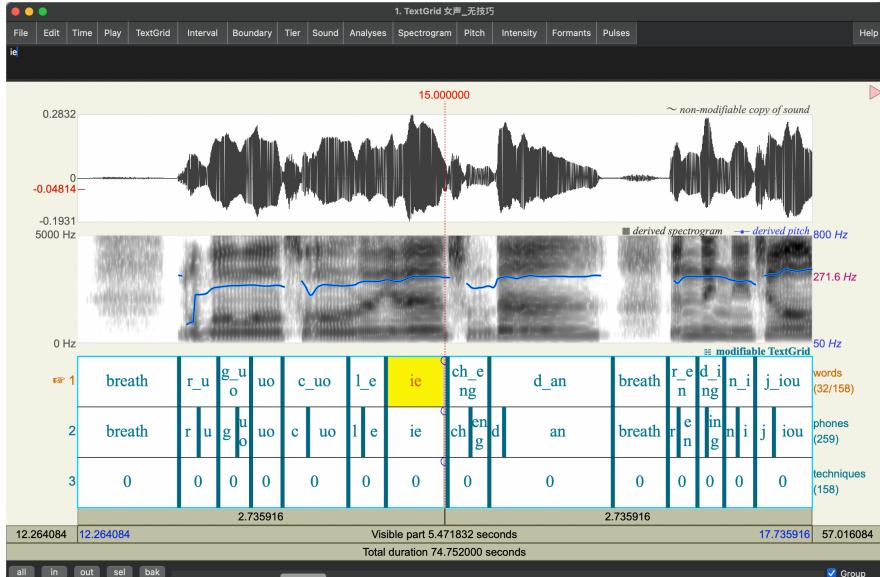
我已然能够熟练编写 CUDA、pytorch 等代码，以及常见的 NNModel。以及基础工具的使用。

The screenshot shows the NVIDIA Developer website's technical blog page. The header includes links for Home, Blog, Forums, Docs, Downloads, and Training. A search bar and a 'Join' button are also present. The main content area displays a blog post titled 'How to Access Global Memory Efficiently in CUDA C/C++ Kernels' by Mark Harris, dated Jan 07, 2013. The post has 6 likes and a discuss link. Below the post is a 3D visualization of a complex surface.



Speech 初窥科研门径

在大二上学期，通过导师制选择了赵洲教授并且进入组内学习 TTS。我熟练了科研的 pipeline 以及自己上手了 baseline 的基本技巧与代码。



现在的我

这学期才本博贯通机遇的促使下，我有幸进入到沈春华教授的组内进行 AI4science 的学习。

现在我通过 restruct 师兄之前的代码来学习之前组内的工作，并且积累生物知识构思自己的 idea。

于此同时，在本周三与同学的讨论中，我们已经关于 Make-an-audio 模型的基础上对乐器拓宽有了一定的构思，在赵洲老师指点下进行 srtp 以及 paper 的准备工作。

Part.3 对于本博贯通的想法与期待

自己的一点尝试

在今年寒假，我和学弟学妹三人参加了美国大学生数学建模比赛。在四天的时间里，我们通过构思、编程、论文写作等一系列工作，最终将自己的想法转化实现并完成了一篇论文。
我品尝到了一丝丝 " 科研 " 的喜悦 😊

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1 Introduction

1.1 Problem Background

Extreme weather and climate have devastating effects, causing a significant number of human casualties each year and leading to economic losses. These events also impact the financial industry and the issuance of catastrophe insurance. Therefore, it is crucial to analyze the reinsurance market based on historical regional natural disasters and the circulation of catastrophe bonds. For instance, recent snowstorms and storms in California have prompted adjustments in the insurance and reinsurance industries, while natural disasters in the United Kingdom have affected property and the economy, leading to fluctuations in insurance companies' profitability.

Given these challenges, it is important to understand the impact of climate change on regional insurance settings and make models to ensure the sustainability of the property insurance industry & building preservation.

1.2 Literature Review

In the face of a changing global climate, the insurance industry confronts growing economic threats and uncertainties related to insurance losses. Traditional underwriting policies based on past environmental data are no longer sufficient due to the significant impact of climate change on loss ratios. Nott (2003) pointed out that insurance companies underwriting catastrophic events can no longer base their underwriting policy analysis on past environmental data because the loss ratio undergoes significant changes with even minor atmospheric condition variations.[1]

Ake Munkhammar and Robert Themptander highlight the importance of extreme weather in determining insurance coverage levels and stress the need to analyze building construction policies in the real estate industry.[2] The increasing frequency and severity of extreme weather events have a substantial impact on insurance losses, leading to the systematic use of mathematical models and analytical methods for risk analysis. These tools are utilized to study reinsurance investments, real estate industry risks, and guide regional investment planning.

1.3 Restatement of the Problem

We need to collect data online and solve the following questions:

1. Develop a model for insurance companies to determine if they should underwrite policies in an area that has a rising number of extreme weather events. Demonstrate the model using two areas on different continents that experience extreme weather events.
2. The correlation between real estate development and regional insurance policy changes is modeled, and make feasibility analysis.
3. Analyze methods for preserving culturally or economically significant buildings in the community and the associated economic costs.
4. Utilizing models to assess building values and help communities successfully preserve valuable buildings and landmarks.

1.4 Our Work & Model Overview

We establish four models to solve target issues, and you can see our workflow in Figure 1.

对于本博贯通的想法

在过去一年半的探索中，我逐渐认清自己内心想要。
我对科研以及科学的未来有着属于自己内心的一种喜爱与渴求。
而本博贯通恰恰是一个非常好的机遇。

恳请批评指正！