KEVIN ZHANG

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EDUCATION

Carnegie Mellon University *June 2023 - Present*
Bachelor of Science, Computer Science

Relevant Coursework: Principles of Imperative Computation, Mathematical Foundations for Computer Science, Great Practical Ideas in Computer Science, Matrix Theory

Illinois Mathematics and Science Academy *August 2020 - June 2023*
High School Diploma - GPA: 4.0/4.0

Relevant Coursework: Computational Science, CS Seminar: Machine Learning, iOS App Development

SKILLS

Languages	C++, JavaScript, Java, C#, C, Swift, Python, HTML, CSS, LaTeX, MATLAB
Technologies	React, Three, Node, Express, JQuery, Linux, JSON
Skills	Computational Physics, Data Analysis, Mathematics, Computer Graphics, Cryptography, Frontend Web Development, Backend Web Development, Mobile App Development

EXPERIENCE

Fermilab June 2021 - June 2023
Student Researcher *Batavia, IL*

- Deployed machine learning models to lower lepton jet misclassification rates by 61.8% from the theoretical limit of cuts-based methods currently used in my group
- Processed LHC Run II data and Monte-Carlo simulations for training and validating the afforementioned models

The Ross Mathematics Program June 2022 - August 2022
Student *Terre Haute, IN*

- Developed a simple radiosity engine (see projects section)
- Studied quantum-resistant encryption and signature algorithms such as the NTRU cryptosystem (NTRUEncrypt, NTRUSign, NTRU-MLS), the LLL algorithm, and the CRYSTAL algorithms (CRYSTAL-Kyber, CRYSTAL-Dilithium)

PROJECTS

Radiosity Engine December 2020 - April 2021

- A simple rendering engine that works by applying the finite element method to solve the rendering equation for the given scene. The radiosity method isn't view-limited and is computationally cheaper than ray-tracing for rendering the same static scene. The code and instructions for running it can be found on my GitHub page.

SELECTED AWARDS

US Physics Olympiad (USAPhO) Bronze Medal + Honorable Mention
3× American Invitational Mathematics Examination (AIME) Qualification
National Merit Scholar