Edi Zhang

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Website | Linkedin | Github

Education

University of California, Los Angeles (UCLA) | **Los Angeles, CA** *Expected 2026*
BS, Applied Mathematics, Minor in Data Science Engineering, Specialization in Computing

- **GPA:** 3.8/4.0 — Dean's Honors List
- **Relevant Coursework:** Abstract Linear Algebra (Honors), Linear/Nonlinear Systems of Diff/Eqs, Data Structures/Algorithms, Applied Numerical Computing, Probability/Statistics I/II, Classical/Quantum Mechanics, Math for Life Science, Calculus I/II/III; Planned: Real Analysis, Machine Learning, Neural Networks/Deep Learning
- **Skills:** Python, C++, MATLAB, Data Analysis (NumPy, Pandas, Matplotlib), Machine Learning (Tensorflow, Sklearn, PyTorch), SQL, Julia, ReactJS (HTML/CSS/JS) Excel, Indesign

Work Experience

Cleveland Clinic Lerner Research Institute | **Researcher** | **Cleveland, OH** *Jun 2024 - Present*

- Researching in the Advanced Musculoskeletal Imaging Lab on mathematical modeling of tibiofemoral joint using Generalized Procrustes/Principal Component statistical analyses techniques to analyze bone shape variance
- Constructing topological surfaces by processing 275 MRI segmentations using Marching Cubes (Computer Graphic Algorithm to extract polygonal mesh) and Laplacian Smoothing (Algorithm to smooth polygonal mesh)
- Implementing variance decomposition on five models of topological surfaces to obtain hyper-dimensional eigenvectors representing principal directions of shape variance to ultimately characterize knee osteoarthritis development
- Presenting abstract at 2025 Orthopaedic Research Society Annual Conference and drafting manuscript for publishing

UCLA Department of Mathematics | **Course Reader** | **Los Angeles, CA** *Sep 2024 - Dec 2024*

- Generating XML files and Python scripts to score homework assignments/projects for C++ programming course
- Grading assignments for over 90 students, ensuring timely feedback and detailed evaluations for coding projects
- Assisting TAs/LAs with clarifying programming concepts and offering support on debugging and optimizing code

Extracurricular Activities

The Bruin Group Consulting | **Consultant** | **Los Angeles, CA** *Jan 2024 - Present*

- Engaging in pro-bono strategy/marketing projects through premier consultancy (4.5% acceptance rate) for startups
- Spearheaded primary market research on M&A strategies for a multi-billion dollar top-5 U.S. defense company
- Collaborated with vegan snack startup to research market analysis and pricing strategies towards college students

Bruin Sport Analytics | **Data Journalist** | **Los Angeles, CA** *Jan 2024 - Jun 2024*

- Leveraged in-depth data analysis and statistical techniques to publish data-driven articles on sports performance
- Presented and pitched articles and data processing/analysis methods at workshops for data science fundamentals
- Underwent 10-week statistics/data science course with NumPy, Pandas, Tensorflow, Matplotlib, Sklearn, PyTorch

Undergraduate Mathematics Student Association | **Active** | **Los Angeles, CA** *Sep 2023 - Present*

- Volunteering in student tutoring and mentorship groups, Integration Bee, and organizing professor research talks
- Recruiting new members and promoting club events, socials, competitions, and presentations for students on campus
- Leading workshops for new students on resume building, research/career opportunities, and course/concept tutoring

Projects

Temple of Doom | *C++* | Github *May 2024 - Jun 2024*

- Multiple-level single player game managing 50+ actors/objects per move using dynamic memory allocation
- Uses polymorphism/inheritance to create 15 types of actors/objects which manage game interactions each move
- Randomly generates maps/actors/objects at runtime and uses recursion to determine optimal moves for monsters

Freestyle Race Strategies | *Python, Jupyter* | Article *Jan 2024 - Feb 2024*

- Analyzed race splits and time progressions across freestyle races to predict potential times among top swimmers
- Web-scraped data from 1000+ swimmers to construct linear regression modeling front and back half race splits

Additional Information

Competitions: BCG Consulting Case Competition Finalist, ACM Hack on the Hill, ACM ICPC, ASA Datafest, Integration Bee, College Club Swimming Nationals, ICCA

Achievements: AIME Qualifier (2-time), AP Scholar with Distinction, National Merit Commended Scholar, Monte Vista Athletic Booster Scholarship, USA Swimming CA/NV Sectionals Finalist, CIF State Swimming Qualifier

Other Volunteering: Campus Barber, Awaken A Cappella, Division I Swim Team Volunteer, UCLA Volunteer Day

Interests: Blitz Chess (2200), Speedcubing, Jazz Piano, Musical Theater, Swimming, Floral Designing, Barbering