Edi Zhang

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Website | Github | Linkedin

Education

University of California, Los Angeles (UCLA) | **Los Angeles, CA** *Sep 2023 - Jun 2027*
Bachelor of Science, Applied Mathematics, Minor in Data Science Engineering, Specialization in Computing

- GPA: 3.8/4.0 — Dean's Honors List
- Relevant Coursework: Honors Proof-based Linear Algebra, Linear/Nonlinear Systems, Data Structures/Algorithms, Discrete Math, Classical/Quantum Mechanics, Applied Numerical Computing, Probability, Calculus I/II/III
- Competitions: BCG Case Competition Finalist, Hack on the Hill, College Club Swimming Nationals Qualifier

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
- Submitted an abstract for Orthopaedic Research Society Conference and preparing a paper for publishing
- 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
- Tools used: Python (NumPy, SciPy, Matplotlib, Pandas, Tensorflow) and MATLAB

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

- Generating XML files with 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

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

Data Journalism | *Python, Excel* | Article *Feb 2024 - Mar 2024*

- Conducting in-depth data analysis on 200-meter Freestyle race strategies and potential times among top swimmers
- Web-scraped data from 1000+ swimmers to construct linear regression modeling front and back half race splits

Extracurricular Activities

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

- Engaging in pro-bono strategy projects through a premier consultancy for startups with a 4.5% acceptance rate
- Spearheaded primary market research on M&A strategies for a multi-billion dollar top-5 U.S. defense company

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

- Volunteering in student tutoring and mentorship groups, Integration Bee, and hosting various professor talks
- Recruiting new members and promoting club events/competitions/workshops/presentations for students on campus

Campus Barber | **Self-Employed** | **Los Angeles, CA** *Sep 2023 - Present*

- Founded a barbering business providing convenient and high quality services for 150+ students around campus
- Generated tailored recommendations for clients looking for new styles/routines, resulting in a 90%+ return rate

Additional Information

Skills: Python, C++, MATLAB, Data Analysis, React.js (HTML/CSS/JS), SQL, Julia, Excel, LaTeX, Adobe Indesign

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

Languages: English, Mandarin Chinese, Working Spanish

Interests: Blitz Chess (2200), Jazz Piano, Musical Theater, Singing, Swimming, Rubik's Cubes, Floral Designing