

Katie Kim

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY *Expected May 2028*
Bachelor of Science, Mechanical Engineering - Overall GPA: 3.506
• *Relevant Courses:* Dynamics, Statics of Solids, Thermodynamics, Multivariable Calculus, Differential Equations, Linear Algebra, Physics I (Mechanics), Physics II (Electromagnetism), Physics III (Waves)
Faith Lutheran High School, Las Vegas, NV - Overall GPA: 4.44 *Diploma Received May 2024*
• *Relevant Courses:* Honors Computer Aided Drafting, Honors Engineering 1, AP Calculus AB & BC, AP Physics 1, AP Chemistry, AP Environmental Science, AP Spanish Language & Culture

PROFESSIONAL EXPERIENCE

Las Vegas Valley Water District - Vertical Asset Management Intern, Las Vegas, NV *May 2023 - Aug. 2023*
• Operated a submersible ROV for tank, forebay, and underground pipeline inspections; authored five corresponding formal reports detailing maintenance recommendations based on footage analysis
• Assisted with project oversight for several startup pumping station construction sites, cathodic protection test-site reading collections, and Syrinix pipeline monitor installations onto fire hydrants
• Drafted proposed cathodic protection test site installations for six piping vault locations using AutoCAD by taking field measurements, reviewing legacy drawings, and ensuring compliance with company standards
• Developed foundational knowledge of flow velocity and pipe sizing calculations, types of control valves, etc.
Las Vegas Valley Water District - Material Services Intern, Las Vegas, NV *June 2022 - Aug. 2022*
• Completed inventory management of various pipes, valves, flanges, fittings, etc. using Avantis Asset Management software within the LVVWD central warehouse
• Coordinated the delivery and distribution of materials and equipment between five LVVWD affiliated facilities

RESEARCH EXPERIENCE

AguaClara Project Team - Ram Pump Subteam Member, Cornell University *Nov. 2024 - Present*
• Design a vertical hydraulic ram pump for clean water transport up to 7 m at 28 mL/s employing a double reverse check valve system for implementation across 24 AguaClara rural treatment facilities in Honduras
• Model hydraulic performance of the pump (head, flow rate, etc.) through ProCoDA software and calculations
• Engineer and integrate system enhancements to improve pumping efficiency and minimize water loss during operation, utilizing computer-aided design tools and machining equipment such as a vertical mill, lathe, etc.
Steinschneider Research Group, Cornell University *Aug. 2025 - Present*
• Conduct research on climate/hydrologic system resilience under uncertainty using stochastic modeling
• Apply ArcGIS for the spatial analysis and visualization of water quality datasets in the Six Nations region
• Use Python to analyze HEFS ensemble forecasts and evaluate hydrologic model performance & accuracy
OUR Research Education Program (REP) for High School Students, UNLV *Feb. 2022 - April 2022*
• Researched the negative environmental impacts of cyanobacteria blooms on surrounding ecosystems
• Developed a program to identify algal blooms in water body images and presented findings at a symposium
Oh Lab of Neurogenetics - Science Education for the Youth, UNLV *Oct. 2022 - Dec. 2022*
• Gained hands-on experience with collegiate wet lab techniques such as PCR, cell culture, and microscopy

LEADERSHIP EXPERIENCE

Society of Women Engineers - Community Outreach Board Member, Cornell University *Sep. 2024 - Present*
• Promote women in engineering and technology fields through diversity, inclusion, and outreach efforts
• Coordinate volunteer events with other campus engineering societies, local organizations, and Ithaca schools
Anne Education USA - Coordinator of English Education, Remote *March 2021 - Present*
• Recruit and supervise volunteers to provide English language instruction to six schoolteachers in Cambodia
• Organized in-person instruction for ~100 students across 4 local schools in Pursat during Summer 2023

SPECIALIZED SKILLS

Computer Aided Drafting (AutoCAD, Fusion360, Revit) • Python • ArcGIS • Construction Project Management • Cathodic Protection • HEFS Analysis • Fluency in Korean • Limited Working Proficiency in Spanish