

Katie Kim

Las Vegas, NV / Ithaca, NY

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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