



AJ Villaruel

Ph.D. Student in Civil and Environmental Engineering, admitted Summer 2026

Bio

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AJ's current research focuses on the hydrodynamics of large roughness elements in the surf zone. Specifically, he is interested in the cross/along-shore variability in energy dissipation in the presence of these elements, the associated turbulence and wake-dynamics, and the resulting implications for nearshore sediment transport and coastal morphology, using computational fluid dynamics (CFD) and laboratory wave-basin techniques.

EDUCATION AND CERTIFICATIONS

- BS, Cornell University , Biological Engineering, Global Development (2026)