

# Alex Trahan

7630 Norcanyon Way – San Diego, CA 92126  
alextrahan@gmail.com

---

**Objective:** Full-time employment in coastal and hydraulic engineering to apply and further develop technical, leadership, and communication skills gained from working and studying in four countries

## **Education**

---

**Delft University of Technology (NL)** (GPA 8.78 of 10) *Aug 2011 – June 2013*

**Universitat Polytechnica de Catalunya (ES)**

**Norwegian Univ. of Science & Technology (NO)**

Master of Sciences – Coastal and Marine Engineering and Management

*Courses: Coastal Dynamics, Flood Defense, Coastal Protection, Probabilistic Hydraulic Design*

**University of California, Berkeley** (GPA 3.85 of 4.0) *Aug 2007 – May 2011*

Bachelor of Sciences - Civil and Environmental Engineering

## **Projects**

---

### **Assessment of the Effect of Temporal Variations on Extreme Wave Heights:**

- Researched the influence of temporal trends on high return period wave height estimates to justify further study of these trends and methods to account for them (Fall 2012)

### **IJsselmeer High-Velocity Fish Migration Gate:**

- Investigated alternative sluice gate opening patterns to allow fish migration across dam dividing Wadden Sea from Lake IJssel while managing salt intrusion (Spring 2012, 4 Students)

### **Accelerated Disaster Response System for Catastrophic Flooding:**

- Designed Information Delivery Infrastructure for flood disaster response, including aircraft-mounted package for survivor location, and involving governmental, public, and private stakeholders to assess feasibility (Spring 2010, 4 Students)

## **Applicable Experience**

---

### **Engineering Intern:**

*Deltares (Delft, Netherlands)*

*Jan 2013–present*

- [MSc Thesis work] Studied role of seasonality in methods for estimating extreme marine wind and waves, including development of time-varying models, to improve flood defense design criteria used by the Dutch government

*Ben C. Gerwick, Inc. (Oakland, CA)*

*June-Aug 2011*

- Performed probabilistic assessment of wind-wave climate for marine bridge design using Mike 21 modeling for wave propagation and extreme value methods

*SAIC Marine Operations Division (San Diego, CA)*

*Jun–Aug 2006–09*

- Designed protocols and tools for submarine construction equipment database use and maint.
- Scaled, built, and tested model of marine instrument hub and relay buoy

### **Research Intern:**

*Scripps Institution of Oceanography (San Diego, CA)*

*July–Aug 2010*

- Constructed buoy and programmed associated data analysis methods to measure micro-scale pressure variations at sea surface

## **Applicable Skills**

---

- Engineer in Training certification (California, 2010)
- Programming: Matlab, Python, Microsoft Office (inc. VBA), LaTeX, Java, HTML, Mike 21
- Finite Difference and Finite Element Analysis
- Statistical Analysis (focus on Extreme Values)

## **Organizations and Awards**

---

- UC Berkeley Ulchi and Yoshiko Sunada Leadership Award (2011)
- Chi Epsilon Civil Engineering Honor Society –President (Fall 2010)  
Arthur N. L. Chiu Scholar in 2011  
Best Presenter at 2011 Pacific Conference
- Boy Scouts of America – Eagle Scout. Project building outdoor education aides for local ranger