CAMERON BRACKEN

12 E 15th St. Appt. 2

707.825.6787

cameron.bracken@humboldt.edu

http://cbracken.info/

Education

- **Humboldt State University**—Arcata, CA
Majoring in Environmental Resources Engineering and Applied Mathematics

    - GPA: 3.5 (overall), 3.5 (ERE major), 3.80 (Math major)
    - Projected Graduation Date: May, 2009
    - *Selected Courses*: Computational Methods For Engineers 1, 2, 3, Environmental Systems Engineering, Probabilistic Analysis of Environmental Systems, Environmental Monitoring and Data Analysis, Fluid Mechanics, Advanced (vector) calculus, ODEs, PDEs, Applied Stochastic Processes, River Hydraulics, Transport Phenomena, Thermodynamics, Dynamical Systems (independent study), Advanced Numerical Methods, Hydrology, Water Quality and Environmental Health. *In Progress:* Hydrology 2, Mechanics of Materials, Electronics, Capstone Design Project, Introduction to Mathematical Thought.

Experience

- **National Weather Service Student Researcher**—Eureka, CA
Summer 2008 to present

    - Worked in a team to develop bar forecast for San Francisco Bay.
    - Prepared ADCIRC and SWAN models.
    - Worked within and extended automated forecast framework.
    - Developed web interface to model results via Adobe Flex.

- **Environmental Fluids Research Experience for Undergraduates**—Unv. of Colorado, Boulder
Summer 2007

    - Mentored by Dr. Balaji Rajagopalan in efforts to develop multi-site streamflow forecast framework.
    - Statistical analysis with R and MATLAB, data maniulation.
    - Work presented at American Geophysical Union Fall 2007 Conference.

- **Hydrology/Hydraulics Student Research Assistant**—Humboldt State University
Fall 2006 to Summer 2008

    - Assisted the research of Dr. Margaret Lang for CalTrans relating to culvert fish passage.
    - Preformed flume experiments on scale models of culverts, data analysis, culvert surveying.

Skills

- **Modeling**
    - Experience implementing: finite differences, finite elements, optimization, stochastic processes, statistical prediction, Monte Carlo simulation.
    - Experience with specific models: ADCIRC, SWAN, MODFLOW, RMA2, HEC-RAS, HEC-HMS.

- **Operating Systems:**
    - Proficient with Mac OS 9 and X, Windows XP and Vista, Linux (Suse, Ubuntu, Redhat).

- **Computer Languages and Programs:**
    - Proficient with Fortran 90, Matlab, R, LaTeX, Excel, Html, Adobe Flex.
    - Familiar with Fortran 77, Perl, Python, Php, Css, MySQL, C, Adobe Illustrator, Adobe Photoshop.

Awards

- Roscoe-Schneller Award for outstanding potential in environmental resources engineering, Spring 2007 ($500).

- Robert S. Chambers Award for academic achievement in mathmatics, Spring 2007 ($500).

- Honorable mention, 2007 COMAP Mathematical Contest in Modeling (MCM).

- Honorable mention, 2008 COMAP Mathematical Contest in Modeling (MCM).

References

- Troy Nicolini
  Warning Coordination Meteorologist
  NOAA/NWS
  Eureka Weather Forecasting Office
  Phone: (707) 443-6484 ext. 223
  E-Mail: `troy.nicolini@noaa.gov`

- Dr. Balaji Rajagopalan
  Associate Professor
  Dept. of Civil, Environmental and Architectural Engg.
  University of Colorado Boulder
  Phone: (303) 492-5968
  E-mail: `balajir@spot.colorado.edu`

- Dr. Margaret Lang
  Associate Professor
  Environmental Resources Engineering
  Humboldt State University, California
  Phone: (707) 826-3613
  E-mail: `mml1@humboldt.edu`