

Christopher Ward

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EDUCATION

Western Carolina University
B.S. Computer Science, B.S. Environmental Science

Cullowhee, NC
Graduation December, 2015

TECHNICAL SKILLS

Languages: Java, Python, MIPS, C, C#, SQL, Bash, Perl, PHP, HTML, CSS, JavaScript
Software Tools: Git, Make, gdb, Valgrind, Vim, Subversion, sed, awk, grep, Ant, JUnit, IntelliJ
Other: L^AT_EX, Android, Django Web Framework

SELECTED PROJECTS

Computer Science Capstone – *Shuttle Tracking System*

Fall 2013 - Spring 2014

- Designed a cross-platform application that allows students the ability to monitor the location of campus shuttles, using Android phones and a custom-built tracking application, relaying shuttle positions to a database server. App reports percent filled for each shuttle as well using OpenCV, helping administrators optimize routes for efficiency.
- Conferences Presented: National Conference for Undergraduate Research (NCUR), Appalachian Energy Summit, and Western Carolina Undergrad Expo. Awarded grand prize for 'Poster Competition'

Environmental Science Capstone – *Evaluation of Commuter Transportation Sustainability*

Fall 2013

- Evaluated current commuter transportation habits by polling students as they arrived to campus, studied time taken to fill parking lots, and what distribution of traffic entered campus throughout the day. Recommended incentive programs for carpooling, improving sidewalk and bicycle systems from apartments to campus, and child care services for faculty and staff, among others.
- Conferences Presented: National Conference for Undergraduate Research (NCUR), Appalachian Energy Summit, and Western Carolina Undergrad Expo. Awarded grand prize for 'Research Competition'

PANELS PRESENTED

Appalachian Energy Summit
Student Sustainability Panel

Boone, NC
July 30, 2014

- The focus of the student panel was to present work that is being done by five UNC universities with regards to the working groups taking place during the summit. During the panel I presented transportation sustainability research we had conducted, then held a Q&A session afterwards.

VOLUNTEER EXPERIENCE

Watershed Association of the Tuckasegee River
Technician/Developer

Bryson City, NC
April 2015 – Present

- Developed a low-cost, GSM-based telemetry device for polling sensor data and sending it to the web, along with generating real-time (2 second delay) plots of the data for their website. Also responsible for setting up and configuring new water quality instruments for the organization.

WORK EXPERIENCE

WCU Department of Geosciences
Watershed Research Fellow

Cullowhee, NC
May 2015 – Present

- Helping maintain and operate the Western Carolina University Hydrological Station. Installing probes and data loggers, collecting and analyzing data, and also working on a project to stream and visualize live data coming in from the sensors.

WCU Department of Geosciences
GIS Research Assistant

Cullowhee, NC
January 2015 – May 2015

- Designed and developed Geo-Databases for use with the Esri ArcMap software as part of a research collaboration effort with the National Forest Service and the Geosciences Department at Western Carolina University.