

Christopher DeMars

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Education:

UC Santa Barbara

1997 - 2002

Bachelor of Science in Computer Science.

Columbia Community College

2005 - 2008

GIS technical certification as well as introductory biological courses missed during my computer science education.

UC Davis

2009 – present

Graduate study in the Hydrology program with a focus on watershed scale modeling of non-point source agricultural pollution through model development and the leveraging large geospatial datasets.

Relevant Experience:

UC Davis: Graduate Student Researcher

2010 - present

Utilized ESRI's Arc products as well as open source GIS tools to quantify solute loadings of waterways and acres of farmland impacted by proposed legislation. Used SWAT for basin modeling of solute and bacterial transport.

UC Davis: Graduate Student Researcher

2009 - 2010

Coded machine learning algorithms in matlab to find an inverse solution to fractal generating functions.

Google Summer of Code

Summer of 2008 and 2009

Worked on OpenJUMP, a Java based open source GIS platform. Developed a triangulated irregular network plugin and a database driver.

System Administrator

1999-2002

Was responsible for maintaining a mixed Unix/Windows network for the Institute for Earth Science Systems at UCSB. I also wrote code for scientific data collection and analysis in C++.

Relevant Skills:

- ESRI ArcMap suite
- ENVI image processing
- Open source GIS: PostGIS, gdal, proj4, OpenJUMP, GeoDjango
- Programming language fluency: Fortran, SQL, Python, Java, C/C++, Matlab, R, Perl, Lisp, VHDL, Unix shell scripting
- Models used: SWAT, MODFLOW, HYDRUS, SRH2D