

# Julie Prestopnik

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720-568-9773

## WORK EXPERIENCE

### Software Engineer III, University Corporation for Atmospheric Research

Boulder, CO — June 2017 - present

I provide software engineering support to the Developmental Testbed Center on the Model Evaluation Tools Plus (METplus) team. METplus is a verification framework that spans a wide range of temporal (warn-on-forecast to climate) and spatial (storm to global) scales. I provide software support of the METplus components with system installation, infrastructure, maintenance and user support. This work requires close collaboration with the Environmental Modeling Center at the National Oceanic and Atmospheric Administration to install and maintain unofficial and official releases on various NCAR machines, NOAA machines, including WCOSS and community machines.

I lead the METplus team on documentation, installation and maintenance, and user support. I lead the team in the production of Security Technical Implementation Guides (STIGs) for the METplus components and run monthly cybersecurity meetings with the Air Force. I participate in multiple planning committees including the DTC Retreat Planning Committee, the METplus Training Series Planning Committee, the METplus Workshop Planning Committee, the RAL Communications Committee, and represent the METplus team in the external Unified Workflow Committee.

I have strong attention to detail and organizational skills, producing high quality and thorough code and documentation. I am a reliable and solid team member with top notch communication skills. My customer service skills are exceptional, with positive feedback from both internal staff and external partners who interact with me.

### Software Engineer II, University Corporation for Atmospheric Research

Boulder, CO — June 2009 - June 2017

I was a primary engineer on the Graphical Turbulence Guidance (GTG) system. I was responsible for the day-to-day support, technical development of the libraries, applications, and scripts in C/C++ and Python and testing and monitoring the system. I was also responsible for the technical transfer, documentation of the system, and communication with internal and external parties.

I helped design and create requirements, defined the initial default configuration file, created new Python code, and was responsible for the technical transfer and support for the Model Evaluation Tools + (MET+) project. This new MET+ package is a set of Python wrapper scripts around the MET verification tools. MET+ development began in 2016 with initial development for the cyclone-relative verification for the Stony Brook University (SBU) project and is headed toward a larger focus on replicating the Global Deterministic National Centers for Environmental Prediction (NCEP) Verification. Future work will focus on ensemble, meso and storm scale verification of NCEP and public support.

I contributed to the Pikalert project and the In Situ project by providing engineering support by writing library and application C++ code, creating documentation, and doing technical transfers, and to the NASA A-Train project by helping retrieve, convert, and re-grid a variety of aviation products and satellite data sets.

I am the primary responsible party for the RAL Nightly Builds which run on multiple machines on various platforms. I have attended a workshop on the LDM and have given presentations at UCAR's RAL retreats.

### Software Engineer I, University Corporation for Atmospheric Research

Boulder, CO — June 2005 - June 2009

I designed, implemented, and tested C++ applications to enhance quality control checks on United Airlines in situ data

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and analyzed flight data using Matlab for the In Situ Turbulence Project.

I evaluated the METRo (Model of the Environment and Temperature of Roads) model to see if it could provide the best prediction for the MDSS (Maintenance Decision Support System). I modified and wrote new C/C++ and Python code to integrate METRo with the existing MDSS code. I wrote an ingestor to read NetCDF and write XML and the reverse, and converted XML output to CSV output.

I modified and wrote new Python scripts to add functionality to the GTG system, simplify and better automate the playback system, and fix bugs. I worked with scientists to create necessary ASCII and NetCDF files for analysis and to create turbulence summary data.

## **Student Assistant III, University Corporation for Atmospheric Research**

Boulder, CO — April 2004 - June 2005

I modified C++ libraries and applications to enhance the quality control on observations, helped determine reasonable variable range limits and performed tests to see how often data went outside these ranges.

I wrote Python scripts to convert ASCII METAR time series data into HDF5 and the reverse, wrote Perl scripts for copying various types of data from the mass store to external disks, and wrote Perl scripts to convert ASCII data into a newer ASCII format and applied quality control range checking.

## **Student Assistant, BioServe Space Technologies**

Boulder, CO— October 2002 - May 2003

I assisted in implementing a GUI in Qt and C++ that allowed ground control to interact with payloads on the Space Shuttle and International Space Station, wrote Perl programs to generate web content, and helped assemble hardware and install Debian and Debian packages.

## **Loan Assistant, FirstBank of Longmont**

Longmont, CO— August 2001 - August 2002

I ensured insurance compliance on existing loans, processed note and deed of trust cancellations on paid loans, prepared loan payoff notices, and prepared written correspondence for officers.

## **Assistant Vice President, FirstBank of Longmont**

Longmont, CO— September 1998 - August 2001

I underwrote and approved consumer and commercial loans, and collected on past due loans. I supervised and managed the teller, bookkeeping, and customer service departments.

## **Audit Intern, Coopers & Lybrand, L.L.P**

Orlando, FL— January 1998 - March 1998

I provided auditing services to clients through accounting data analysis, detailed information test work, and documentation of accounting software.

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## EDUCATION

### University of Colorado

August 2001 - June 2005

Bachelor of Science - Computer Science (with Honors)

Overall GPA: 3.8

### University of Central Florida

August 1994 - June 1998

Bachelor of Science - Accounting (Cum Laude)

Overall GPA: 3.6

## REFERENCES

Available upon request.