# Robert D. French

# Mathematical Software Engineer

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#### **SKILLS**

# Web Services and Infrastructure

Python (Flask), AWS Lambda, Kubernetes, PostgreSQL, DynamoDB, RabbitMQ

#### **High Performance Computing**

C, CUDA, CrayPE, OpenMPI, Python (NumPy), Allinea Forge, LLNL Spack, CMake

# **EXPERIENCE**

Oak Ridge National Laboratory | Oak Ridge, TN - HPC Support Engineer for Titan MARCH 2013 - PRESENT

- Own the continuous delivery pipeline for building and validating scientific applications on Titan and other HPC systems with specialized hardware capabilities.
- Consult with scientific stakeholders to gather user experience requirements for new HPC systems, maintain a sprint plan to manage collaboration during delivery.
- Develop web services that monitor performance and utilization of HPC resources.
- Host semi-weekly "Git It Together" workshop to help students and researchers become
  proficient with git and GitLab: <a href="https://code.ornl.gov/git-it-together/meetings">https://code.ornl.gov/git-it-together/meetings</a>.

### **EDUCATION**

Austin Peay State University | Clarksville, TN - B.S. Mathematics

AUGUST 2007 - DEC 2012

As an undergraduate researcher, I helped develop a new ODE solver which was published in the journal *Numerical Algorithms*: <a href="http://www.springerlink.com/index/e674516w43821148.pdf">http://www.springerlink.com/index/e674516w43821148.pdf</a>.

#### **AWARDS**

## Outstanding Science Communicator | Oak Ridge National Laboratory

AUGUST 2014

I received this award along with two colleagues for our work on <u>Tiny Titan</u>, an interactive toy "supercomputer" that demonstrates the basic principles of High Performance Computing. This work was also recognized by <u>Popular Science Magazine</u>.