Ethan Shepherd

Full Stack Java/JavaScript Developer

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SKILLS

Languages	**Primary**: JavaScript, Java **Secondary**: Groovy, Python
Frameworks/Libraries	Spring/Boot, React, AngularJS, D3, jQuery, Node
Other	Oracle, iBatis, MongoDB, Selenium, Cypress, Git/SVN, Docker

EXPERIENCE

Lawrence Livermore National Laboratory October 2023 - Present
Web Software Engineer - National Ignition Facility *Livermore, CA*

Modernize optics and target diagnostics web applications

- *BLM/SLM Calc [Spring/Boot, OracleAQ, Docker]*: Extract and modernize optics blocker and shadow calculation code.
- *Optics Loop Tool [Spring/Boot, React, Oracle, Docker]*: Refactor legacy web application for optics flaw review.
- *OIDV [Spring/Boot, React, Oracle, Docker]*: Refactor legacy web application for optics image inspection.

National Centers for Environmental Information June 2012 - October 2023
Web/Applications Engineer - Station Metadata/Paleoclimatology Teams *Asheville, NC / Las Vegas, NV*

Design and create Java/JavaScript web applications, REST web services, visualizations, and Groovy server-side applications to ingest and access ground station and paleoclimatology metadata

- *Paleo DIVER [Java, Spring, iBatis, React, D3JS, ArcGIS API]*: Paleoclimatology data search, access, and download via web UI or RESTful API.
- *HOMR [Java, Spring, iBatis, jQuery, D3JS]*: Access ground station history data via dynamic web UI or RESTful API.
- *Metadata Ingest [Groovy]*: Modular and configurable ETL system to retrieve and integrate station history data from a variety of sources.
- Normals and Climate Atlas [React, jQuery]: Visualization and access tools.

National Climatic Data Center November 2009 - June 2012
Scientific Programmer - Remote Sensing Division *Asheville, NC*

C and Fortran scientific data application maintenance, and transition to operations. Java/Spring web application maintenance and development.

- *NOAA Climate Data Records [C, Fortran]*: Refactored scientific data applications from research to operations. Required coding for portability and ease of use, standardizing output, and creating documentation.
- Bilotta, Rocky, Jesse E. Bell, Ethan Shepherd, and Anthony Arguez. *Calculations and evaluations of an air-freezing index for the 1981-2010 climate normal period in the coterminous United States.* - JAMC

National Climatic Data Center February 2008 - November 2009
Systems Analyst / Web Applications Developer - Climate Model Access Team *Asheville, NC*

Web application development and maintenance using JSP, Java Servlets, Perl/CGI, and PHP. Installation and maintenance of various specialized data access servers and applications in RHEL 5.

- *BitTorrent [Linux, Python]*: Initiated the use of BitTorrent at NCDC. Proposal to management, software evaluation, performance testing, and writing operational scripts. Presented at the 2009 American Geophysical Union conference.

Personal Projects GitHub

- *[Java, JavaScript (React, jQuery, AngularJS, VueJS, D3JS, NodeJS), Python, Android, Mongodb, Groovy/Grails]*: Various web and Android hobby projects. Set list matcher, habit tracker, eclipse traffic viz, etc.

EDUCATION

Georgia Institute of Technology *2014-2016*
M.S. in Computer Science (spec: Computing Systems)

University of North Carolina, Asheville *2005-2007*
B.S. in Computer Science