Jesse D Waite

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Professional engineer with comprehensive domain expertise in MLOps, DevSecOps, power systems, and language intelligence. In-depth technical experience with CNCF technology, air-gapped deployments, cyber intelligence domains, workflow languages, and development opsec.

EXPERIENCE

Software Engineer *PNNL National Security Division, Special Projects* *Feb. 2023 – Present*

- Developed mission-critical RKE2 deployment, increasing team velocity
- Developed and deployed monitoring apis and services to AWS government segments
- Specified and implemented analytics services and gitlab build infrastructure for defense sponsors

Software Engineer *Schweitzer Engineering Laboratories* *Oct. 2018 – Apr 2022*

- Delivered multiple microservices for the Synchrowave power system big data platform
- Planned and executed live training demos for sales presentations and customer on-boarding
- Built Parquet parsers and MLOps tooling for DOE sponsored power system data research

Power System Security Researcher *Washington State University* *Jun. 2018 – Oct. 2018*

- Derived Markovian attack observability models based on MITRE ATT&CK
- Delivered ELK analytics solution, salvaging university project funding

Software Developer *Washington State University* *Apr. 2017 – Jun. 2017*

- Deployed sensor analytics platforms for the WSU Urbanova smart city project

Associate Software Engineer *Schweitzer Engineering Laboratories R&D* *Mar. 2015 – Dec. 2015*

- Built CI system in Python, IEC61131-ST, and C#, automating hybrid firmware/software development
- Implemented C# command line interface into AcSELerator RTAC

Software Engineering Intern *Schweitzer Engineering Laboratories R&D* *Jun. 2012 – Jan. 2015*

- Publicly released 311C-x 103 protective relay settings configuration driver
- Developed driver code reversal tool to automate large sets of manual tests

EDUCATION

M.S. Computer Science *Summa Cum Laude, Washington State University* *2018*

- Thesis in process modeling and anomaly detection using graph compression and Bayesian modeling
- Primary coursework in machine learning, structured prediction, reinforcement learning, network science
- SME developer of large-scale language analyses for intelligence applications

B.S. Computer Science *Summa Cum Laude, Washington State University* *2014*

- Recipient of merit scholarships and NSF research grant for language prediction on AAC devices
- Emphasis in computer engineering and artificial intelligence
- Multiple independent projects with SOLR, FreeRTOS, robotic control, wireless network programming, and MCU protocol driver implementations (I2C, SPI, and serial/UART)

PROJECTS AND SERVICE

- Volunteer youth code tutor and mentor
- Developer of Devster, a Golang workflow execution language for CNCF containers
- Author of Channerics generic channel library for Golang 1.18+
- Developer of SLIDE fast-inference structured prediction methods for eye-tracking based AAC devices
- Developer of open-source sequential prediction libraries in C++, Python
- CHEETAH author, polyglot neural language analyzer identifying cyber malinformation APTs