MENGHAN XU

12722 Millennium Dr. Apt 433, Playa Vista, CA 90094
Phone: 978-944-5701 Email: menghanx@usc.edu Linkedin: https://www.linkedin.com/in/menghan-xu-01316b3a/

DevOps Engineer with 5+ years of experience building, deploying and scaling infrastructure for Elasticsearch analytics engines. Collaborate effectively with teams to provide real-time monitoring solutions. I focus on scalability, automation, and performance. A curious learner currently pursuing an M.S. in Computer Science at USC. Looking to leverage my knowledge and experience into solving problems with advanced technology.

PROFESSIONAL EXPERIENCE

VERIZON WIRELESS **New York, NY**
DevOps/ElasticSearch Engineer **July 2015–November 2020**

- Built, maintained, and scaled infrastructure for production, QA, and dev environment for more than 30 Elasticsearch search engine clusters, hosting over 90 terabytes of log data.
- Automated EC2 resource provisioning and Elasticsearch cluster initialization using Jenkins, CloudFormation, S3, and Bash Scripts, reducing time to deploy from 5 hours to 15 minutes.
- Led a team of 3 DevOps engineers in transition from on-prem servers to AWS ultimately reduced infrastructure cost by 25% and improved performance by 9%.
- Automated performance measurement reporting and disaster recovery process leading to real-time alerting and a reduction of system downtime and poor performance by 30%.
- Collaborated with more than 40 teams to set up data ingestion pipelines, coordinated storage resources, and conducted training sessions, helped users to gain full visibility of application performance, and improved overall productivity.

VERIZON WIRELESS **Piscataway, NJ**
Software Engineering Intern **June 2014–August 2014**

- Developed a report generator in Java, retrieving data from Elasticsearch engine and populating charts and tables in HTML format and embedded in email content, adopted and deployed in production environment.
- Simplified documentation and comments on functionalities, aiming to provide clean instruction and code for reusability and readability.
- Utilized Atlassian Jira for task management and Github for version controls to set clear objectives and milestones to ensure steady progress and meet deadline requirements.

EDUCATION

University of Southern California **Los Angeles, CA**
Master of Science in Computer Science **January 2021–December 2022**

University of Massachusetts Amherst **Amherst, MA**
Bachelor of Science in Computer Science **September 2011–May 2015**

SKILLS

- Certification: AWS Certified Solutions Architect Associate, edX Verified Certificate for software development
- Languages: Java, Python, HTML, CSS, JavaScript, Bash shell scripting
- AWS: CLI, EC2, CloudFormation, S3
- CI/CD: Jenkins, Git

ACADEMIC PROJECTS

Weather Search Web App **September 2021-Present**

- Developed a web application for weather search based on location.
- Built frontend with HTML5, CSS, JavaScript, Bootstrap, and Angular; hosted backend on GCP with Python Flask.
- Utilized Google API, Tomorrow.io API, and HighCharts for data collection and visualizations.

Natural Language Processing Model **September 2021-Present**

- Implemented NLP models including neuron network, perception, SVM with Python PyTorch.
- Extracted features from 3 million product reviews by converting plain text into vectors with Word2Vec embedding.
- Trained and Tested all models with train/test split dataset and reported accuracy comparison between models.

Checker Game Agent **January 2021-May 2021**

- Implemented a Checker game agent in Java with Minimax algorithm with α-β pruning.
- Optimized algorithm with a transportation table to store game states, allowing faster search in a search tree.
- Implemented iterative deepening method to prevent checker agent from timing out based on a game clock.