Benjamin W. Centner

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Education

University of Illinois at Urbana Champaign *2023 - 2024*
Masters of Computer Science

University of Michigan *Ann Arbor, MI*
Bachelor of Science *2018 - 2022*
    Double Major: Computer Science & Film, Television, and Media

Skills

Languages: Python, Scala, C++, Java

Technologies: Kubernetes, Docker, Linux, Spark, Hadoop File System, Bamboo, Git, Kafka, Hive, Postgres, SQL, Airflow, Databricks, Elastic Stack, Flask, Pandas, Maven, SBT, Helm

Work Experience

Epsilon *Chicago, IL*
Software Engineer II *September 2023 - PRESENT*
- Developed several event-driven data pipelines for Epsilon's demand-side platform (DSP), leveraging a microservice-based architecture with RESTful and RPC calls
- Designed and implemented sidecar services to enforce SLAs for over 500 business-critical Spark jobs daily, improving reliability and providing greater visibility for stakeholders
- Integrated AWS S3 and HashiCorp Vault into the ad click aggregator to support a new data source to expand international reach, adding nearly 100 GB of data per week while ensuring secure secret management
- Identified and resolved a critical caching bug affecting resiliency of approximately 10,000 jobs per week
- Spearheaded development of a distributed data engineering automation framework, utilized daily by 100s of engineers worldwide. Iteratively improved the software by integrating user feedback to enhance functionality
- Led alpha testing for cross-functional products, aligning efforts across at least four departments
- Conducted training sessions for coworkers on debugging Kubernetes services, managing Postgres connectors, publishing artifacts, and resolving software deployment issues, fostering team expertise and operational efficiency

Associate Software Engineer *September 2022 - September 2023*
- Engineered a robust ETL pipeline to migrate terabytes of data daily from on-premises systems to AWS S3
- Automated the weekly delivery of Spark memory utilization reports and optimization recommendations for six teams, achieving a 10 TB reduction in usage per week
- Managed over 80 Airflow DAGs executing thousands of tasks daily. Authored numerous DAGs and established best practices by developing generic operators and implementing pre-commit tests
- Coordinated team effort to implement Elastic Stack real-time monitoring and alerting of ML cron jobs, enhancing system reliability and responsiveness
- Collaborated with research scientists to debug and optimize big data machine learning jobs on Spark
- Wrote 12 Bamboo plans, aligned Git repositories with team conventions, and trained researchers on continuous integration and continuous delivery (CI/CD) practices to improve workflow efficiency

University of Michigan School of Information *Ann Arbor, MI*
Research Assistant *July 2021 - September 2021*
- Created annotations from hundreds of news articles for a training set for a ML research

Projects

- Intelligent self driving model car with image recognition and AWS cloud store with lambdas for alerting
- Browser plugin that analyzes financial news, with open source ML model and RAG, to determine impact on market
- Instagram clone with server-side and client-side pages, hosted on AWS
- Search engine to find movies and tv shows on streaming services

Leadership Experiences

Filmic *Ann Arbor, MI*
Editor *September 2018 - May 2022*
- Collaborated and conceptualized media products for over eight clients, across seven semesters
- Facilitated talent acquisition process over two years, including a multi-round interview process

Exploration School *Wellesley, MA*
Instructor & Residential Advisor *January 2019 - August 2019*
- Developed curriculum for both a weekly 35 hour course and a 3 hour workshop
- Received critical feedback from students and management, incorporated criticisms to refine curriculum over 6 weeks to provide a better learning experience
- Fostered an inclusive environment with consideration to diversity, identities, and beliefs