Michael Nelson

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EDUCATION

Michigan State University, East Lansing, MI   Aug 2015 – May 2018
M.A., Media and Information

North Park University, Chicago, IL   Aug 2007 – May 2011
B.A., History

EXPERIENCE

Senior Software Engineer   Feb 2020 –
Arc XP, The Washington Post
- Leading efforts to implement on-demand video (VOD) monetization via server-side ad insertion (GAM/DFP, SCTE-35, SCTE-104)
- Contributing to and/or leading efforts to modernize live and on-demand video encoding, packaging, and delivery workflows (CloudFront, Akamai, AWS Elemental)

Software Engineer II   Aug 2017 – Feb 2020
GP Strategies Corporation
- Modernized traditional Java web app (Spring, Spring Boot, Amazon ECS, Terraform)
- Provided operational support (Datadog, Splunk, Amazon CloudWatch, ELK, JMX)

Front End Developer   Feb 2017 – Aug 2017
Matrix Center for Digital Humanities and Social Sciences
- Worked on the peer-review mechanism of an open access academic journal
- Developed WordPress theming (PHP, JavaScript, HTML, CSS) from design comps

Full Stack Developer   Jan 2017 – Aug 2017
School of Social Work, Michigan State University
- Designed, developed, and deployed an app for data upload, processing, and visualization
- Programmed behavior in Python (Flask) and JavaScript (React.js, D3.js)

Research Assistant   Sep 2015 – Aug 2017
Department of Advertising and Public Relations, Michigan State University
- Prepared and analyzed data with Python, R, and IBM SPSS
- Implemented psychological research protocols as JavaScript applications

Web Accessibility/Usability Intern   Sep 2015 – May 2016
College of Arts and Letters, Michigan State University
- Remediated websites and LMS courseware for WCAG 2.0 compliance
- Reported on usability and accessibility to academic technology leaders in the College

SKILLS

- Operating cloud native applications and infrastructure on AWS, GCP, Heroku
- Developing software with Java, JavaScript, TypeScript, Python, Scala, C++
- Analyzing and troubleshooting media assets (MPEG-TS, ISOBMFF, GPAC/MP4Box)
- Optimizing streaming acquisition, processing, and delivery (HLS and DASH; FFmpeg)
- Troubleshooting ad delivery, measurement, and tracking (VAST & VMAP, IAB OM SDK)
- Modeling and utilizing relational and non-relational data (PostgreSQL, Db2, MongoDB)