

Mark Dickerson

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SUMMARY

Backend Engineer with eight years of professional experience building data pipelines, analytics dashboards, and cross-platform APIs—specializing in Python, AWS, and SQL. Strong background in data modeling and transforming large datasets into actionable insights. Adept at working with interdisciplinary teams to deliver high-impact, scalable solutions.

TECHNICAL SKILLS

- **Languages:** C, C++, CSS, HTML, Java, JavaScript, Python, R, RPG, Ruby, SQL, TypeScript
- **Frameworks & Tools:** AWS (API Gateway, Cognito, DynamoDB, Lambda, Redshift, S3), Docker, Git, REST APIs, Serverless Framework, D3.js, Node.js
- **GIS:** ArcGIS, IDRISI, ModelBuilder, QGIS, SAGA GIS
- **Other:** Agile/Scrum, Unit & Integration Testing

EXPERIENCE

Software Engineer I & Software Engineer II

Union Street Media (USM)

March 2022 – January 2025

Burlington, VT (Hybrid)

- Supported internal and client-facing analytics needs by developing and maintaining scalable data platform (ETL Pipelines, data warehouse, BI tools, etc.)
- Established a single source of truth by designing and building a REST API that syncs data across systems
- Collaborated with teams across the organization to improve efficiency of their work by automating reporting
- Improved existing systems' performance, observability, reliability, and scalability by identifying pain points and replacing them with new infrastructure and software patterns
- Completed months-long team initiative to transition from Universal Analytics to Google Analytics 4-based reporting
- Ensured bug-free releases by automating deployment with comprehensive unit tests and integrations tests
- Researched, designed, and built an analytics dashboard that integrated conversion, lead, and campaign data to provide stakeholders with long-awaited insights and support data-drive decision making
- Collaborated with team members to improve Agile workflow and mindset through evaluation, communication, and iteration

Freelance Software Developer

Self-employed

September 2014 – March 2022

Remote

- Designed and implemented data structure to store large-scale geospatial data
- Developed shapefile reader and integrated with existing code to provide geospatial data to machine learning algorithms building digital models of the real world
- Ensured ease of maintenance by documenting client's code base
- Drafted normalized database layout optimized for storage efficiency, expected queries, and ease of implementation
- Styled eBook using HTML and CSS and ensured cross-platform compatibility

Software Engineer

Vermont Information Processing (VIP)

January 2017 – July 2019

Colchester, VT (On-site)

- Provided “never before seen insights into the wine and spirits industry” (President and CEO of WSWA, Michelle Korsmo) by writing efficient scalable code that imports, cleanses and summarizes millions of sales records for the largest beverage suppliers and distributors in the country as the lead back-end engineer of the SipSource project
- Collaborated with product managers to design, implement, deploy and refine features based on client and user feedback
- Maintained existing programs and tables with feature updates and bug fixes
- Participated in on-call rotation to provide after-hour support for critical issues
- Demonstrated adaptability by quickly learning AS/400 iSeries (IBM i) tech stack to support development goals.
- Attended Vermont Midrange User Group (VTMUG) conferences to stay current in technical advances

Software Developer

Faraday Inc. (Start-up)

August 2015 – November 2016

Burlington, VT (Hybrid)

- Updated web application's user interface
- Researched, trained, tuned, tested, and analyzed machine learning algorithms
- Built interactive visualizations and dashboards as resources for the Customer Success team

EDUCATION

Bachelor of Arts in Computer Science and Geography (Double Major)

Middlebury College

September 2011 – May 2016

Middlebury, VT (On-site)

- **Representative Coursework:** Math Foundations of Computing, Data Structures, Machine Learning, Computer Architecture, Information Visualization, Algorithms and Complexity, Computer Graphics, Lego Robot Design Studio, Fundamentals of GIS, GIS for the Developing World, Geography of Climate & Development, Archeological Landscapes, History of Cartography, Introduction to 2D Art & Design, Linear Algebra, Multivariable Calculus, Real Analysis
- **Honors Thesis Work:** *Location Based Privacy for Smart Phone Users*
- **Athletics:** Varsity Baseball (Pitcher)

ADDITIONAL

Leadership: Eagle Scout, Green Mountain Baseball League Player & Board Member, Youth Group Leader, Young Life Leader

Other Experience: Shared Living Provider, K-8 Computer Science Club Instructor, GIS Lab Monitor, Computer Science Department Grader & Tutor, Research Assistant, Middlebury Baseball Social Media Manager, Swim Instructor

Activities: National Baseball Congress World Series (3x), 2022 GMBL Pitcher of the Year, InterVarsity Christian Fellowship, Middlebury Swing Dance Club, 2013 Middlebury Zombie Apocalypse Survivor, IMDB credited actor, Studio Art, Adobe Creative Suite, Lego Mini Building Madness Runner-Up