

Barry McAndrews

bmcandrews3@gmail.com • bmcandrews.com • Philadelphia, PA • 215-588-9243

Senior software engineer experienced in building backend services, data-driven applications, and customer-facing tools across retail and financial services. Strong background in Kotlin, Spring Boot, Python, React, Spark, and cloud infrastructure, with an emphasis on practical, maintainable systems.

Skill Highlights

Back-end Java, Kotlin, Spring Boot, Python, Spark (PySpark, Scala), Databricks, RESTful API development, SQL
Front-end React.js, Storybook, Material UI, Typescript, SCSS, Webpack, Angular, Vue.js
Cloud AWS (EC2, S3, Lambda, CloudFormation, EMR, DynamoDB, API Gateway, SNS, SES), Azure (Functions, Storage, Cosmos DB, Terraform, APIM, Azure AI Search), GitHub Actions, SendGrid

Experience

Senior Software Engineer

January 2024 – Present

Dick's Sporting Goods, Inc. | Pittsburgh, PA (Remote)

- Led the development of full-stack features, integrating back-end data pipelines and front-end enhancements to improve the CRM user experience.
- Architected and built an internal AI assistant using Python and LangGraph that helps customer service agents navigate operational tools, follow company procedures, and resolve complex customer situations.
- Developed customer-facing conversational experiences, including a production NLU chatbot and a generative AI chatbot currently being prepared for launch.
- Improved automated issue resolution, reducing the number of customer conversations requiring escalation to a human agent.
- Improved platform reliability and throughput through connection reuse, caching, load testing, application metrics, and distributed tracing.
- Reduced code base size by setting React code standards and by adopting Storybook for UI-first development.

Software Engineer II

April 2021 – January 2024

Dick's Sporting Goods, Inc. | Pittsburgh, PA (Remote)

- Developed CRM and customer service features using Kotlin, Spring Boot, React, TypeScript, and Azure.
- Built data processing systems using Spark and Databricks, enabling seamless ETL workflows and reports.
- Ensured cloud stability and parity by enforcing the use of Terraform for all cloud infrastructure.
- Architected and implemented a low-cost, highly-available email system using Azure Functions.
- Led an internal effort to build a custom CRM from scratch to be used by customer service agents.

Software Developer

July 2019 – April 2021

The Vanguard Group, Inc. | Malvern, PA

- Maintained and optimized large-scale, batch ETL jobs in Apache Spark for high-stakes financial applications.
- Led the modernization of front-end features using Angular, delivering complex data in a digestible format.
- Implemented modern data solutions that replaced legacy systems with Spark applications for maintainability.
- Worked with platform to create an organizational templates for new AWS Services.
- Designed and implemented new cloud architecture via CloudFormation infrastructure as code (IaC).

Software Development Intern

June 2017 – August 2017

ARRIS | Horsham, PA

- Planned and implemented a REST API using Spring Boot that replaced an existing customer support system.
- Designed Vue.js frontend for managing ARRIS devices that consumes the mentioned REST API.
- Overhauled existing reporting site to display relevant information from a PostgreSQL database.

Education

Bachelor of Science in Computer Engineering • Graduated May 2019

University of Pittsburgh | Swanson School of Engineering | Pittsburgh, PA

AWS Certified Solutions Architect — Associate • Certified July 2020