

# Alexander E. Dziarnowski

*alexdziarn@gmail.com | (703) 226-9911 | github.com/alexdziarn | alexdz.vercel.app*

## Education

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Master of Science (M.S.) in Computer Science, May 2024 to Present

*University of Colorado Boulder, Boulder, CO*

*Coursework: Software Architecture for Big Data, Data Structures and Algorithms, Machine Learning*

Bachelor of Science (B.S.) in Finance, August 2016 to May 2020

*Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, VA*

*Concentration: Investment Management and CFA*

## Work Experience

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### Software Engineer, Capital One

McLean, VA, August 2022 to October 2023

- AWS, Jenkins, Terraform, Python, Docker, Typescript, React.js
- Engineered and maintained a scalable infrastructure using ECS, Redis, and RDS(Relational Database Service) to host the content management platform supporting over 1000 customers
- Collaborated with internal customers like the Enterprise Consumer Product org and external customers like JCPenny, and identified functional & system requirements, researched adequate technologies, and selected design patterns
- Implemented automatic failover for east and west regions using Route53, SNS, Cloudwatch Alarms, and Lambda allowing the ability to failover based on custom Cloudwatch metrics increasing reliability and cutting server errors by 40%
- Architected and deployed AWS infrastructure using Terraform templates and Jenkins pipelines. Developed Python scripts for automated provisioning, rehydration, and testing of deployments in AWS removing human error and reducing deployment time by 20%
- Created custom Grafana dashboard components using Typescript and React.js to monitor system health and status codes
- Acted as the primary on-call resource, ensuring continuous system operation and rapid issue resolution
- Led the oversight and implementation of all software releases, ensuring seamless deployment and system stability.

### Software Engineer, Capital One

Richmond, VA, August 2021 to August 2022

- JavaScript, Node.js, Vue.js, HTML, CSS, AWS
- Designed and built the customer support voice application replacing the use of third-party apps reducing costs
- Led migration efforts for Team's API framework, improving overall security and reducing request latency by 50%
- Converted static application from AWS ECS to AWS Lambda resulting in 5% cheaper hosting
- Implemented unit and functional tests using frameworks including Cypress, Jest, Mocha Chai, Sinon, and Vue Test Utils raising overall code coverage from 80% to 100%

### Software Engineer in Training, Capital One

Richmond, VA, February 2021 to August 2021

- JavaScript, React.js, HTML, CSS, AWS
- Developed full stack application distributing AWS sandbox accounts to employees, streamlining internal workflows
- Collaborated within an agile development team

**Finance Intern, Ampcus Incorporated** Chantilly, VA, June 2019 to August 2019

## Project Experience

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### Solana Wallet Tracker

- Utilized @solana/web3.js to keep track of swaps for Solana wallet addresses. Design and implement nest.js server to post notifications in a discord channel triggered by swaps, allowing for users to have immediate information to copy trade

### Uniswap Trading Bot

- Implemented a Python-based system leveraging Ethereum smart contracts to scan prices and execute trades, achieving a transaction speed increase and handling multiple simultaneous transactions

### Resume Website (Cloud Resume Challenge)

- Integrated CI/CD workflows with Python unit testing and GitHub actions, streamlined infrastructure using AWS SAM, CloudFormation, and GitHub, and crafted a view counter utilizing HTML, CSS, JavaScript, Lambda, and DynamoDB

## Additional Information

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**Technical Proficiencies:** AWS, Git, HTML, CSS, JavaScript, Typescript, Vue.js, React.js, Python, Terraform, Jenkins, Docker

**Certifications:** Amazon Web Service Solutions Architect Associate