Mihai Nicolae

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WORK EXPERIENCE

GoDaddy   **2021 – Present**
Senior Software Engineer
- Lead multi-quarter projects to deliver multi-region data center redundancy for Domain Broker Service, retire on-prem Node.js API Gateway, allow rate-limited access to closeout domains endpoints to all customers, and augment daily auctions inventory files with Majestic SEO data from GoDaddy data lake.
- Lead infrastructure automation in the team. Notable deliveries include automation to spin-up and tear-down AWS application infrastructure, perform global Aurora database unplanned failover, use rotated IAM role credentials and renewed certificates, and recreate non-compliant EKS node groups. Switch to EC2 spot instances in non-prod, leading to 8% cost savings.

GoDaddy   **2019 – 2021**
Software Engineer
- Contribute to rebuild of Domain Broker Service by implementing API service in Golang to integrate with Salesforce CRM and serverless components that perform domain fulfillment.

IBM   **2015 - 2019**
Software Engineer
- Lead team of 3 engineers responsible for developer experience. Delivered 99.9% availability of build system by migrating it to right-sized on-prem k8s cluster. Reduce build time by 4x by optimizing IO bound operations with pigz and tmpfs.
- Increase extensibility of open-source runtimes by implementing libraries to return DataFrames for JDBC and HDFS data sources, tools to import jars, JDBC drivers and certificates and packaging Spark clusters running different releases into the product.
- Add support for custom runtimes by implementing API endpoints in Node.js to manage custom Docker images of open-source runtimes.
- Improve security and compliance of Db2 native encryption by adding support for master key management through HSMs (Hardware Security Modules) using the PKCS#11 protocol.

University of Toronto   **2015**
Undergraduate Research Assistant
- Reduce runtime by 9x of Noema, a concept discovery algorithm, by parallelizing and rewriting the taxonomy graph search using C++ and Boost Graph Library (BGL) and parallelizing the creation of the concept summary index.

IBM   **2013 – 2014**
Software Engineer (internship)
- Increase Db2 availability by implementing instance config param COMM_EXIT_LIST to be configurable online; this allows comm. buffer exit libraries to be loaded and unloaded dynamically without restarting the Db2 instance.

EDUCATION

University of Toronto   **2015**
Honors Bachelor of Science in Computer Science, Computer Science Specialist

SKILLS

- **Languages:** Go, Java, C#/.NET, C/C++, Python, Node.js, JavaScript/TypeScript, SQL, Bash, Open Policy Agent, React / Redux
- **DevOps**: Jenkins, GitHub Actions, Git/GitHub, Elastic, NewRelic, CloudFormation
- **Infra, platform**: AWS, Docker / Kubernetes, EKS, Fargate, Linux, SQL Server, MySQL, Db2, Aurora, DynamoDB, Apache Spark, Hadoop, HDFS, Kafka, RabbitMQ, Kinesis, Lambda, Step Functions