MICHAEL KHA

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Software engineer adept at abstract and low-level concepts from an architect's approach. Capable of researching and applying unfamiliar technologies by comparing use cases, alternatives, and trade-offs. Proficient with scaling and automated deployment of systems. Pursuing positions relevant to full-stack, cloud, and data infrastructure.

EDUCATION

B.Sc. in Software Engineering | *Cooperative Education - GPA: 3.7* — Rochester Institute of Technology
Minors: Mathematics, Computer Science — 08/2017 – 05/2021
Applied engineering to software development life cycle through computer science principles, projects, and co-ops.
Involved in: Society of Software Engineers - Mentor | RIT AI Club - Member | codeRIT - Member

SKILLS

Languages: Python, Java, JavaScript, C/C++
Technologies: Git, React (Hooks/Redux), OpenCV
Design: Algorithm Design & Analysis, Design Patterns, Distributed Systems, Microservices, Security
Data: SQL, NoSQL, Kafka, Spark, Cassandra, Hadoop
Cloud Providers: AWS, GCP, Azure
DevOps: Vagrant, CloudFormation, Terraform, Ansible, Docker, Kubernetes, CI/CD, Web Server Infrastructure

EXPERIENCE

AI Software Engineer Intern | *IOMAXIS - Remote* — 05/2020 – 08/2020
- Introduced MLOps to automate workflows and shift research business model to development on AI team
- Researched automated AI workflow platforms (such as Airflow) used by tech companies in production systems
- Proposed distributed ETL pipeline to centralize data, while automating data extraction and pre-processing
- Led flexible automated deployment of service using Vagrant, agnostic to AWS or on-premise environment
- Integrated Kubernetes for configuration, resource management, and scaling of Kafka
- *Kafka, Spark, Cassandra, AWS, Vagrant, Terraform, Docker, Kubernetes, Jira, Scrum*

Cloud Software Developer Intern | *IOMAXIS - Arlington, VA* — 01/2020 – 05/2020
- Refined hybrid cloud security concept to a functional product, automating builds using major cloud services
- Created Flask API endpoints with OAuth2.0 bearer authentication to secure user access to build details
- Optimized quota requests to determine valid regions using multiprocessing, reducing request time by 50%
- Configured deployment environments and error logging to perform QA build verification and mitigate new errors
- *Python, JavaScript, React, SQLite, AWS, GCP, Azure, Docker, Ansible, Bamboo, Jira, Scrum*

Software Engineer Intern | *Norfolk Southern - Atlanta, GA* — 05/2019 – 08/2019
- Implemented changes to database API, recording status of 180,000 monthly cars at terminals and on the line
- Attained insight on domain knowledge and disaster recovery practices for software impacting 30% of revenue
- *Java, Python, C, Perl, Db2 SQL, Jenkins*

Teaching Assistant | *Rochester Institute of Technology - Rochester, NY* — 08/2019 – Present
- Supporting cloud course with topics in architecture, containerization, automated deployment, and big data
- Previously assisted system design course that introduces design patterns, APIs, metric analysis, and refactoring

PROJECTS

Senior Capstone Project | *addletic.com* – League Management and Social Platform
- Development of sports league management Django application with product owner and customer clients
- Overhauling client-side state management and AWS server deployment to deliver functional product
- *Python, TypeScript, React, Jest, Enzyme, Postgres, AWS, Docker*

Cloud Microservice Simulation | burger-order-microservice
- Proof of concept to orchestrate microservices on ECS using SQS messaging to manage sequential tasks
- Auto-scaling of services triggered from SQS request traffic using CloudWatch metrics
- *Ruby, React-Rails, AWS, DynamoDB, Docker*