

# Johan Cornelissen

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## Professional Summary

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- Hands-on experience implementing cloud native solutions using various AWS Services. Including design of scalable event driven and REST API based architectures.
  - Familiarity with architecting and securing AWS infrastructure using IAM, KMS, CloudTrail, CloudWatch, Trusted Advisor, Guardduty, Security Groups, Secrets Manager etc.
  - Extensive experience developing deployment automation (CI/CD) and constructing repeatable environments using infrastructure-as-code tools (Terraform, CloudFormation, Serverless Framework).
  - Experience solving open-ended engineering design problems and communicating concise solutions using presentations and asynchronous design documentation.
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## Technical Skills

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- **AWS Services:** EC2, VPC, RDS, Cloudwatch, Lambda, SQS, SNS, ECS, EKS, ECR, DynamoDB, ElastiCache, CloudFormation, Cloudtrail, Opsworks, API Gateway, AWS IoT, Privatelink, Cloudfront, Route53, IAM, Certificate Manager, KMS, Secrets Manager, S3, EFS, AWS Backup.
  - **Programming/Query Languages:** Golang, Python, Groovy, Ruby, Bash, Java, SQL
  - **Configuration Management:** Chef, Ansible
  - **Source Code Management:** Github, BitBucket, Clearcase
  - **Databases:** DynamoDB , Postgres, Oracle
  - **Container Orchestration Tools:** Kubernetes, AWS ECS, Docker Compose
  - **DevOps Tools:** Jenkins, Docker, Jira, Confluence, Splunk, Sonarqube (static analysis), Blackduck (dependency scanner), Nexus (artifact repository), Pagerduty, Gradle, Maven.
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## Education

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### Bachelor of Applied Science in Computer Engineering

Sept 2013 – April 2018

Queen's University, Kingston, Ontario

- Dean's Honour List, Excellence Entrance Scholarship, Donovan Brown Scholarship in Applied Science
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## Experience

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### Staff Software Engineer

March 2021 – Present

Trend Micro, Ottawa, Ontario

- Founding developer of Cloud One Open Source Security by Snyk. Implemented custom SAML identity provider to allow single sign to a Snyk partner application using Trend Micro Cloud One identities.
- Improved product time to value by developing dynamic security rule deployment mechanism to allow runtime protection rules to be updated in customer environments automatically using AWS IoT.
- Drove initiative to create 12+ operational playbooks for responding to operational monitoring alarms, and for troubleshooting service issues.
- Helped create and review architecture designs for new Cloud One Container Security features.

### Full Stack Developer

March 2020 – March 2021

Trend Micro, Ottawa, Ontario

- Designed, developed and operated cloud native security application written primarily in Golang through a microservice architecture.
- Used event driven and REST API based architectures to achieve a high level of scale and modularity according to best practices.
- Leveraged the Serverless Framework for deploying complete software system (application code, infrastructure, monitoring) as code to AWS.
- Mentored new team members by providing pair programming opportunities, answering technical questions and performing 10+ code reviews per week.

**Continuous Integration Developer/DevOps Engineer**

June 2018 – March 2020

*Trend Micro, Ottawa, Ontario*

- Design, develop and maintain industry standard CI/CD infrastructure through the use of Jenkins, GitHub, Docker, AWS, Azure, and Atlassian collaboration tools.
- Provide operational support for Trend Micro's Deep Security as a Service (DSaaS) through the use of various AWS infrastructure (OpsWorks, EC2, RDS, Lambda) and monitoring tools.
- Advocate for an increase in DevOp's culture and practices in all aspects of the software lifecycle.

**Software Engineering Intern**

May 2016 – Sept 2017

*Ciena Corporation, Ottawa, Ontario*

- Contributed to the software cycle of a feature implemented on a real-time system to visually display hardware LED status in a customer visible user interface.
- Significant experience debugging user space software errors on Windriver VxWorks, and Linux OneOs with the use of GDB and LTTng tracing.
- Analyzed product performance issues by using memory and real-time monitoring tools to identify software deficiencies. Leveraged open source analytics platforms such as Elasticsearch and Grafana to easily identify the impact of LTTng tracing on a real-time system.
- Increased efficiency of feature integration and regression testing by developing a generic automated test suite in TCL. Tests are now created and executed dynamically based on data queried from the product's evolving data model.

**Project Manager**

August 2017 – Present

*Queen's University, Kingston, Ontario*

- Advisor and resource for three student design teams working on a community-based project as part of their first-year engineering design course.

**Teaching Assistant**

Fall 2015, Fall 2017

*Queen's University, Kingston, Ontario*

- Assisting second year engineering students in ELEC 271 Digital Systems with laboratory experiments using the Altera Nios II processor and VHDL.

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**Extracurriculars and Projects**

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**CSGames Social Computing Competition**

Spring 2017

- Participated in AI (Python), Relay Programming (Python, Java), Web Development (PHP, HTML), and Debugging (10 languages) competitions at ETS in Montreal.

**Photography Team Manager**

Sept 2015 – April 2016

- Managed a team of 6 photographers as part of the Engineering Society's communications team.

**QBnB**

Spring 2016

- Designed an HTML/PHP based web application with a MySQL database for short-term housing rental.

**Arduino Autonomous Robot Competition**

Spring 2015

- Designed and programmed an Arduino powered robot to autonomously play a game of basketball.

**Clark Hall Pub iOS Loyalty Rewards Application**

Spring 2014

- Developed a basic iOS application for a Queen's on-campus pub to allow loyal customers to claim rewards.