

# Ping Chuan, Tai (Morris)

Taipei / Ottawa

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## EXPERIENCE

**Trend Micro**, Ottawa, Canada  
**Cloud Development Engineer**

Aug 2022 — Present

- Experience working with an AWS Kinesis/Lambda pipeline that processes and analyzes real-time streaming data from various upstream products like networks, emails, endpoints, and gateways. I have utilized Apache Flink to analyze data based on cybersecurity vulnerability rules and models that can be dynamically updated in real time.
- Implemented a distributed search data lake using Azure Data Explore to collect the logs from all user products. The pipeline, built with Azure Function, Databricks, EventHub, and Storage Account, provides multi-tenant data ingestion and high availability search service.
- Worked on several APIs that allow for customized condition search on various log types based on cyber vulnerability, like compromised accounts, malware on endpoint devices, etc. These APIs support hybrid cloud architectures and have rigorous authenticate protection in place, including JWT, Azure AD, and AWS IAM. They are also designed to support async/await functionality using Azure Functions, Cosmos DB and Redis.

**Trend Micro**, Taipei, Taiwan  
**Cloud Development Engineer**

Mar 2021 — Aug 2022

- Implemented a multi-tenant data streaming platform using Kafka that is able to process various types of logs from customer emails sent through accounts and gateways. The platform is integrated with Spring Boot microservices for real-time cyber threat detection and includes the use of JNI to interact with a C++ engine for parsing email row data and encoding/decoding Avro packages between services. This platform is designed to be highly flexible and scalable, able to support a wide range of log types and protocols.
- Experience migrating services from VM-based environments to Azure Kubernetes Service, including the switch from using ansible/Packer to Helm. In the process of migration, I have also reimplemented the service using Java non-blocking asynchronous functions and reactive programming and have a good understanding of syscalls like epoll and io\_uring.
- Worked with Databricks, Airflow and Azure Data Explorer to design platform for detecting real-time cyber threats such as ransomware, phishing, spam, and whaling. These systems are designed to be able to handle high volumes of data stream and provide a stable firewall for protecting enterprise assets through the use of loose-coupling architectures.

**Intel Corporation**, Taipei, Taiwan  
**Intern. Software Engineer (full-time)**

Aug 2019 — Sep 2020

- As an intern on our team, which focuses on graphics driver quality, I built some projects with various functions, including a dashboard that displayed data relating to driver issues using Flask as the backend and hosted on internal servers. The dashboard provides tools for engineers to more easily trace and identify issues, including scripts that query an internal database and cache and aggregate data into user-specific endpoint pages. Users can apply predefined filters to track specific information more easily.

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## EDUCATION

National Changhua University of Education  
**Bachelor of Information Management**

Sep 2016 — Jun 2020

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## PROJECT

Cathay / Microsoft

Sep 2016 — Jan 2017

### **Big Data Competition (Championship)** [media](#)

- As the leader of my team, I analyzed real-life insurance data from Cathay DB and built predictive models using a stacking model approach. The code was built on top of Azure services (VMSS). Through detailed research, we were able to uncover the relationship between insured individuals and cancers.

Mathematical Association of America

Mar 2014

### **American Invitational Mathematics Examination**

- All students who took the AMC 12 and achieved a score of 100 or more out of a possible 150 or were in the top 5% are invited to take the AIME.
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## SKILL

- Prolific Language: Rust, Python, Java, Go
  - DevOps: Terraform, Ansible, Airflow, Kubernetes, Helm, Grafana, Prometheus
  - System: \*nix, Container runtime, Webassembly
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## Link

- GitHub: <https://github.com/morristai>
- LinkedIn: <https://www.linkedin.com/in/morris-tai-509306118/>