Léo Aparisi de Lannoy

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Education .

University of Chicago Chicago Chicago, USA

Ph.D. in Financial Economics 2018 - 2024 (expected)

Dissertation on Asset Pricing Implications of Monetary Policy Normalization. Specialization in Macroeconomics & Asset Pricing.

Paris School of Economics Paris, France

M.Sc. Analysis and Policy in Economics, summa cum laude

Ecole Normale Superieure Ulm

Paris, France

B.Sc. in Physics, cum laude

Experience _____

Danggeun Pay Inc. (KarrotPay)

Seoul, S.Korea

2016 - 2018

Site Reliability Engineer & Infrastructure Team Lead

Mar. 2021 - Present

- Everything that matters.
- Designed and provisioned the entire infrastructure on the AWS cloud to meet security compliance and acquire a business license for financial services in Korea.
- Continuously improved the infrastructure architecture since launching the service. (currently 3.6 million users)

Danggeun Market Inc. Seoul, S.Korea

Site Reliability Engineer Feb. 2021 - Mar. 2021

Kasa Seoul, S.Korea

Founding Member & Director of Infrastructure Division

Jun. 2018 - Jan. 2021

- Designed on-boarding process to guide new engineers, help them to focus on the right tasks, and set expectations to help them be successful at Infrastructure team.
- Migrated the orchestration system from DC/OS to Kubernetes which is based on AWS EKS. Managed 3 Kubernetes clusters and 300+ pods. Managed all Kubernetes manifests declaratively with Kustomize and ArgoCD.
- Designed and managed complex network configurations on AWS with 4 VPC and 100+ subnets. Separated the development network
 and operation network according to financial regulations. Established dedicated network connections from AWS VPC to partners' onpremise network based on AWS Direct Connect with secure connection using IPsec VPN. Provisioned OpenVPN servers with LDAP
 integration.
- Provisioned a observability system with Kafka, Elastic Stack(Filebeat, Heartbeat, APM Server, Logstash, Elasticsearch, Kibana). Collected log, uptime, tracing data from hosts, containers, pods and more. The ES cluster which has 9 nodes processed more than 1 billion documents per month. Wrote Terraform module to easily provision ES cluster on AWS EC2 instances.
- Provisioned a monitoring system with Kafka, Telegraf, InfluxDB, Grafana. Collected metrics from hosts, containers, pods and more. Wrote Terraform module to easily provision InfluxDB with HA on AWS EC2 instances.
- Introduced Kong API Gateway to easily connect all API microservices with a declarative management method based on Terraform and Atlantis to collaborate and audit change history.
- Provisioned the Directory Service for employee identity management based on OpenLDAP which guarantees HA with multi-master replication.
- Implemented Worker microservices consuming Kafka event topics for email, SMS, Kakaotalk and Slack notification. Developed in-house framework to easily build Kafka consumer microservice with common features including retry on failure, DLQ(Dead Letter Queue), event routing and more.
- Introduced Elastic APM to help distributed tracing, trouble-shooting and performance testing in MSA.

Omnious. Co., Ltd. Seoul, S.Korea

Software Architect Jun. 2017 - May 2018

• Provisioned an easily managable hybrid infrastructure(Amazon AWS + On-premise) utilizing IaC(Infrastructure as Code) tools like Ansible, Packer and Terraform.

- Built fully automated CI/CD pipelines on CircleCI for containerized applications using Docker, AWS ECR and Rancher.
- Designed an overall service architecture and pipelines of the Machine Learning based Fashion Tagging API SaaS product with the microservices architecture.
- Implemented several API microservices in Node.js Koa and in the serverless AWS Lambda functions.
- Deployed a centralized logging environment(ELK, Filebeat, CloudWatch, S3) which gather log data from docker containers and AWS resources.
- Deployed a centralized monitoring environment(Grafana, InfluxDB, CollectD) which gather system metrics as well as docker run-time metrics.

PLAT Corp. Seoul, S.Korea

Co-founder & Software Engineer

Jan. 2016 - Jun. 2017

- Implemented RESTful API server for car rental booking application(CARPLAT in Google Play).
- Built and deployed overall service infrastructure utilizing Docker container, CircleCI, and several AWS stack(Including EC2, ECS, Route 53, S3, CloudFront, RDS, ElastiCache, IAM), focusing on high-availability, fault tolerance, and auto-scaling.
- Developed an easy-to-use Payment module which connects to major PG(Payment Gateway) companies in Korea.

Undergraduate Research, Machine Learning Lab(Prof. Seungjin Choi)

Pohang, S.Korea

Researcher

Mar. 2016 - Exp. Jun. 2017

- Researched classification algorithms(SVM, CNN) to improve accuracy of human exercise recognition with wearable device.
- Developed two TIZEN applications to collect sample data set and to recognize user exercise on SAMSUNG Gear S.

R.O.K Cyber Command, MND

Seoul, S.Korea

Software Engineer & Security Researcher (Compulsory Military Service)

Aug. 2014 - Apr. 2016

- Lead engineer on agent-less backtracking system that can discover client device's fingerprint(including public and private IP) independently of the Proxy, VPN and NAT.
- Implemented a distributed web stress test tool with high anonymity.
- Implemented a military cooperation system which is web based real time messenger in Scala on Lift.

ShitOne Corp. Seoul, S.Korea

Software Engineer

Dec. 2011 - Feb. 2012

Developed a proxy drive smartphone application which connects proxy driver and customer. Implemented overall Android application
logic and wrote API server for community service, along with lead engineer who designed bidding protocol on raw socket and implemented API server for bidding.

Honors & Awards

2019 Martin C. And Margaret M. Lee Prize, Best Performance in Macroeconomics Sequence

Chicago, USA

2018 **Neubauer Fellowship**, Graduate Fellowship

Chicago, USA

12 First Prize, French National History Competition (Concours General)

Paris, France

Skills

Programming Julia (Proficient), Python (Proficient), LaTeX (Proficient), Matlab (Intermediate)

Languages French (Native), English (Fluent), Spanish (Proficient)