Tomoyuki KOYAMA / 小山 智之
tomoyuki@koyama.me

Work Experience (Selected)

Software Engineer   Mar. 2024 - Present
🏢 Mercari, Inc.   💻 MySQL
He belongs to SRE team for database reliability.

Cloud Support Associate   Apr. 2023 - Feb. 2024
🏢 Amazon Web Services Japan G.K.   💻 CloudFormation | EKS | ECS | CodePipeline
He was engaged in customer supports in deployment services (Container, IaC and CI/CD).

(Part-time Job) OpsDev Engineer   Mar. 2020 - Sep. 2021
🏢 SORACOM, INC.   💻 Python | Ansible | Goss | ShellScript | GitHub Actions
He built the system for sensing image monitoring and CI pipelines for software tests with S+ Camera.

Education

Ph.D Program in Computer Science   Apr. 2024 - Present
🏛 Graduate School of Computer Science, Tokyo University of Technology
His research interests are log management, root cause analysis, and distibuted tracing.

Master of Computer Science   Apr. 2021 - Mar. 2023
🏛 Graduate School of Computer Science, Tokyo University of Technology
He belonged to Cloud and Distributed Systems Laboratory (Supervisor: Prof. Takayuki Kushida).
His study proposes fast log search method for distributed tracing.
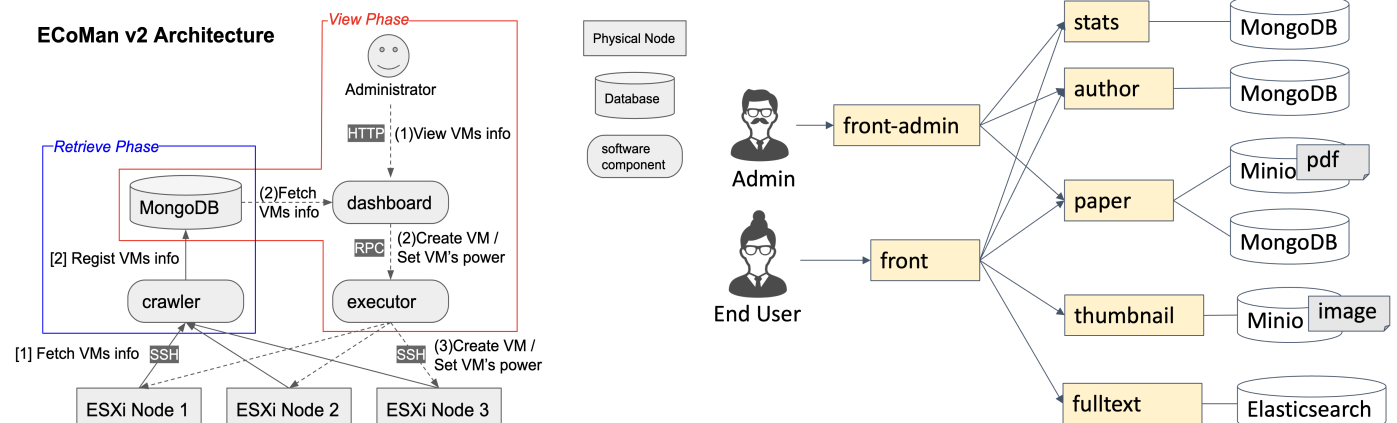
Bachelor of Computer Science   Apr. 2017 - Mar. 2021
🏛 School of Computer Science, Tokyo University of Technology
He belonged to Cloud and Distributed Systems Laboratory. The research area was Distributed Log Management. He proposed the method to reduce search response time for log messages.

Personal Projects

- **ECoMan** : ECoMan allows system admin to manage virtual-machines over several ESXi nodes without vshpere.
- **Doktor** : Doktor is a microservices-based web service for demonstration.
- **NickNS** : NickNS is the DNS server implementation that resolves VM Name into IP Address.

Publications (Refereed)

- Tomoyuki Koyama, Takayuki Kushida, "Log message with JSON item count for root cause analysis in microservices," 2023 6th Conference on Cloud and Internet of Things (CIoT), Lisbon, Portugal, Mar. 2023.
- Tomoyuki Koyama, Takayuki Kushida, "Distributed Log Search Based on Time Series Access and Service Relations," Proceedings of the 36th International Conference on Advanced Information Networking and Applications (AINA-2022), Volume 2, Mar. 2022.
- 小山 智之, 串田 高幸, "検索クエリに配慮した配置による分散ログ検索の高速化," 情報処理学会論文誌, 63, Feb. 15, 2022.

Publications (Non-refereed & Selected)

- Aarushi Vyass, Tomoyuki Koyama, Vishnu Vinodkumar, Takayuki Kushida, "Real-Time NO2 monitoring alert using XGBoost," Tokyo University of Technology CDSL Technical Report, CDSL-TR-139, Mar. 16, 2023.
- 小山 智之, 串田 高幸, "検索性能に配慮した複製による分散ログ管理," 研究報告マルチメディア通信と分散処理（DPS）, 2020-DPS-185, Dec. 14, 2020.
- 小山 智之, 串田 高幸, "OSの自動インストール設定の対話型作成と統一記法," 研究報告マルチメディア通信と分散処理（DPS）, 2020-DPS-182, Mar. 5, 2020.

Community Activities and Volunteers

Project lead, India and Japan Cooperative Learning　　　　　　Apr. 2022 - Feb. 2023
Worked on a research project in collaboration with students from Amity University Mumbai in India and submitted a paper to the IEEE CCEM Student Proposal Showcase

Organizer/Mentor, Cloud Native Dojo　　　　　　　　　　　　Aug. 2021 - Mar. 2023.
He led undergraduate students to develop software and supported them in publishing a paper.

Volunteer hackathon staff, StarT-Tech　　　　　　　　　　　May 2021 - Sep. 2021.
The practice questions for participants were developed by him.

CODEBLUE network team member, CODEBLUE 2019　　　　　Sep. 2019 - Oct. 2019.
He was engaged in network build as a member of server team.

STM (ShowNet Team Member), Interop Tokyo 2019　　　　　　　　　June 2019.
His role was to configure network switches and test network reachability on the network.

Internet Week NOC team member, Internet Week 2018　　　　Oct. 2018 - Nov. 2018.
He built NAT64 environments and operated them.

SC-NOC(Security Camp Network Operation Community) tutor, Security Camp 2018　　Aug. 2018.
His work was cabling, troubleshooting, and presentation of operation reports.

Volunteer conference staff, PyCon JP　　　　　　　　　　　May 2017 - Dec. 2019.
He worked as a member of venue team and as a member of NOC team.

Awards

- Research Award 2023, from 'Graduate School of Computer Science, Tokyo University of Technology', March 2023.
- Research Award 2021, from 'School of Computer Science, Tokyo University of Technology', March 2021.