Adil Bin Bhutto

RESEARCHER, IPLAB, NAIST, JAPAN
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EDUCATION

MSC. Information Science (By Research)   2022 - 2024
Thesis title: Performance Challenges in Containerized Networking: Latency, Jitter, and Bandwidth Beyond 5G
Nara Institute of Science and Technology, Japan
Grade: 4/4

Bachelor of Technology   2017 - 2021
General 4-year degree in Computer Science and Engineering
Tezpur Central University, India
Grade: 8.5/10

RESEARCH INTERESTS

System Software, Networking, Distributed Systems

PUBLICATIONS

Adil Bin Bhutto, Ryota Kawashima, Yuzo Taenaka, and Youki Kadobayashi. "Meeting Latency and Jitter Demands of Beyond 5G Networking Era: Are CNFs Up to the Challenge?." In 2024 IEEE 48th Annual Computers, Software, and Applications Conference (COMPSAC), pp. 1598-1605.

Pratyush Kr. Deka, Yash Verma, **Adil Bin Bhutto**, Erik Elmroth, and Monowar Bhuyan. "Semi-supervised Range-based Anomaly Detection for Cloud Systems." In: IEEE Transactions on Network and Service Management(2022), pp. 1–1.doi:10.1109/TNSM.2022.3225753.

Adil Bin Bhutto, Xuan Son Vu, Erik Elmroth, Wee Peng Tay, and Monowar Bhuyan. "Reinforced Transformer Learning for VSI-DDoS Detection in Edge Clouds." In: IEEE Access 10 (2022), pp. 94677–94690.

AWARDS & ACHIEVEMENTS

Received a full scholarship of **3.5 Million** Yens (JPY) from the Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan, for a span of two years to do my master's and conduct research.

EXPERIENCE

Research Assistant
ICSCoE, IPA, Ministry of Economy, Trade and Industry, Japan   2023 - Present
I am conducting research on enhancing core network technology to optimize performance using generic hardware processor architecture for network function virtualization.

Staff Engineer
Ovvy (https://ovvy.ai), Delaware, United States   2022 - 2024
Lead the MLOps team for real estate image editing. We developed fundamental AI models and applied theoretical knowledge and state-of-the-art computer vision advancements to automate image editing. My responsibilities were to conduct research training on custom AI models for superior performance and oversee the deployment of these models to serve millions of requests.

Visiting Researcher
Autonomous Distributed Systems Lab, Umeå University, Sweden   2021 - 2022
I worked on developing fundamental methods for network anomaly detection using machine learning and data science. Worked on multiple research papers with international collaborations. It was supported by WASP project under Knut and Alice Wallenberg Foundation.

Research Intern
HydroSence Research Lab, Dept. of Civil Engineering, IIT Delhi, India   2020 - 2020
Used Sentinel-1 SAR satellite data to measure Indian river width on Google Earth Engine Platform and designed a web dashboard using LeafletJS, AWS, and Django to visualize crowd-sourced landscape data.

Research Intern
Center for Cognitive Computing Lab, IIIT Allahabad, India   2019 - 2020
Worked on UI design and did a web-based implementation, which involved the deployment of
machine learning models using Flask API, handling physical servers, VPN tunneling over proxy,
and back-end and front-end coding.

COMMUNITY
SERVICE

● Reviewer for Computer & Security Journal   ● PC Member of IEEE AI Test 2024 Conference

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REFERENCES

Dr. Youki Kadobayashi
(Main Supervisor of Master's Program)
Professor at Cyber Resilience Lab
Information Science Division, NAIST
8916-5 Takayama, Nara 630-0192, Japan   jouki-k@is.naist.jp

Dr. Ryota Kawashima
(Co-supervisor and Research Collaborator for Master's Program)
Associate Professor at Graduate School of Engineering
Nagoya Institute of Technology
Gokiso-cho, Showa-ku, Nagoya, Aichi, 466-8555, Japan   kawa1983@nitech.ac.jp

Dr. Nityananda Sarma
(Supervisor for Bachelor Project)
Professor at Department of Computer Science & Engg.
Tezpur University, Assam 784 028, India   nitya@tezu.ernet.in

Dr. Monowar Bhuyan
(Supervisor during ADSLab Research Visit)
Assistant professor at Department of Computing Science
901 87 Umeå, Sweden   monowar@cs.umu.se

COMPUTER
SKILLS

Languages: C, C++, Python, JavaScript, NodeJS, Bash, SQL, LaTeX, Assembly (x86, MIPS)
Common tools & Software Packages: DPDK, Docker, Flask, HTML/CSS, React, Vim, Tmux
Research tools: TensorFlow, Keras API, Scikit-Learn, Numpy, Pandas, Matplotlib
Familiarity with hyperscalers: Google Cloud Platform (GCP), Amazon Web Services (AWS)

EXTRA
INTERESTS

Hobbies: Reading, Cooking, and Play Badminton

(Updated: October 2024)