

# DANIEL (HYUNSEOK) JANG

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Research Interests: Network Measurement and Systems, Wireless Communication, Web, IoT

## EDUCATION AND GRANTS

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**Tamayyuz (Excellence) Research Fellowship**  
New York University Abu Dhabi

*September 2023 - August 2024*

**New York University Abu Dhabi**  
BSc Computer Science; Applied Mathematics Minor

*August 2018 - May 2023*

## PUBLICATIONS

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**Roam Without a Home: Unraveling the Airalo Ecosystem** [[Preprint](#)]

HyunSeok Daniel Jang, Matteo Varvello, Andra Lutu, Yasir Zaki

*Under Submission, 2024*

**Challenges and Opportunities for Global Cellular Connectivity** [[Preprint](#)]

Viktoria Vomhof, HyunSeok Daniel Jang, Matteo Varvello, Stefan Geiler, Yasir Zaki, Tobias Hofeld, Andra Lutu

*Under Submission, 2024*

## RESEARCH EXPERIENCE

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**Communication Networks Lab**

*Research Assistant*

August 2023 - Present

*Abu Dhabi, UAE*

- Developed custom systems for studies related to global cellular network, wireless in-flight connectivity, Bluetooth tracking devices, and information diffusion in social media platforms
- Organized extensive data collection campaigns across over 40 countries, managing diverse teams of volunteers to ensure measurement integrity
- Analyzed and modeled large-scale datasets, deriving insights that led to publications and conference presentations

## CONFERENCES

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**ACM Internet Measurement Conference 2024** [Madrid, Spain]

*November 2024*

Poster Presentation - "A First Look at IPX Hub Breakout with Airalo"

**ACM Special Interest Group on Data Communication 2024** [Sydney, Australia]

*August 2024*

Demo Presentation - "Connecting the Unconnected Using FM Radio", "Towards Faster Web for Developing Regions", "Enabling High Bandwidth Applications over 5G Environments"

## WORKS IN PROGRESS

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**Performance Analysis and Modeling of Bluetooth Low Energy (BLE) Tracker Tags**

Paper manuscript in progress, to be submitted for publication in Fall 2024.

**Low Earth Orbit (LEO) Satellite Network for In-Flight Connectivity**

Paper manuscript in progress, to be submitted for publication in Fall 2024 / Spring 2025.

**Dissemination and Implications of Political Content in TikTok**

Data collection and analysis in progress.

RELATED PROFESSIONAL EXPERIENCE

<b>FINAKLE</b> <i>Backend Developer, Intern</i> · Modernized legacy infrastructure and designed backend APIs for a FinTech platform · <i>Utilized:</i> Python FastAPI, AWS, MariaDB	June - August 2022 <i>Seoul, South Korea</i>
<b>TeamSparta Inc.</b> <i>Software Engineer, Intern</i> · Developed web applications for a large-scale education platform, improving user engagement and system reliability · <i>Utilized:</i> JavaScript, TypeScript, jQuery, React.js, Next.js, Python, Flask, Docker, AWS, MongoDB	April - November 2021 <i>Seoul, South Korea</i>

PROJECTS

<b>Amigo</b> · Engineered and operated a custom measurement testbed to analyze mobile network performance globally, integrating rooted Android devices, web and Android applications, and a centralized control server with monitoring dashboard	November 2023 - April 2024
<b>The Gazelle</b> <i>Deputy Web Chief</i> · Maintained student publication website with React.js and Node.js to provide reliable service for 1,500 readers	September - December 2020
<b>Print Overflow</b> · Built an email automation service updating students with their print history to help reduce paper waste on campus · Received First Place Award at NYUAD Annual Hackathon 2019	November 2019

CERTIFICATIONS

<b>AWS Certified Solutions Architect - Associate</b> <i>Validation Number: ZRNNKBT1X2Q4QGKL</i>	July 2023
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SKILLS

<b>Programming</b>	C, C++, Java, JavaScript, Python, SQL, Scala
<b>Web</b>	HTML, CSS, Javascript, TypeScript, jQuery, React.js, Node.js, Flask, PHP, FastAPI
<b>Database</b>	MongoDB, MariaDB, MySQL, PostgreSQL, HDFS
<b>Software</b>	Docker, Apache Hadoop, Spark