

# Yow Ru Chen

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## PROFILE

Experienced Software Engineer specializing in low-latency, high-performance systems with expertise in Java, multi-threading, and real-time risk/pricing applications. Strong foundation in data structures, algorithms, and concurrent programming, with hands-on experience in financial technology and quantitative computing. Certified in AWS ML Specialty, Deep Learning, and Mathematics for Data Science, with a background in corporate engineering, academia, and applied AI research. Proficient in Java, Python, SQL, Flask, and Django, with experience optimizing scalability, reliability, and performance in financial applications. Passionate about building cutting-edge trading platforms and collaborating with global teams across USA, Japan, Vietnam, and the Middle East.

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## EMPLOYMENT HISTORY

Apr 2023 — Present	Software Engineer, Full-time, Exawizards Inc.	Tokyo
<ul style="list-style-type: none"><li>Developed a high-performance, real-time automated evaluation platform leveraging OpenAI's API, enhancing system efficiency and securing <a href="#">Patent No. 7471760</a>.</li><li>Optimized multi-threaded data processing in a large-scale search engine, improving email extraction accuracy by 80%.</li><li>Led security assessments and penetration testing, fortifying data protection and ensuring robust, low-latency infrastructure.</li><li>Designed and deployed ML-driven algorithms for data segmentation and analysis, enhancing model accuracy and reducing operational costs by 20%.</li><li>Implemented Python and SQL-based data pipelines for large-scale data processing, improving performance and supporting critical business decisions.</li></ul>		
Sep 2021 — Dec 2022	AI Engineer, Research Scholar, Matsuo Institute	Tokyo
<ul style="list-style-type: none"><li>Led a team of four engineers in designing high-performance AI solutions, securing a \$1M+ contract renewal by delivering scalable and efficient systems.</li><li>Developed and optimized machine learning &amp; NLP models to enhance business intelligence, improving decision-making and reducing data processing time.</li><li>Analyzed large-scale financial data, identifying revenue trends and building predictive models that increased forecasting accuracy and boosted sales by 50%.</li><li>Implemented real-time data analytics pipelines, improving system performance and enabling faster market insights.</li></ul>		
Aug 2022 — Nov 2022	Research Engineer, Summer Associate, SenseTime Japan	Tokyo
<ul style="list-style-type: none"><li>Developed high-performance AI models leveraging transformers and temporal structures, optimizing real-time decision-making for autonomous systems.</li><li>Fine-tuned deep learning models using cutting-edge research, improving accuracy and enhancing system efficiency.</li><li>Designed and deployed real-time anomaly detection systems, reducing false positives by 25%, ensuring low-latency, high-reliability performance in safety-critical environments.</li></ul>		

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## TECHNICAL SKILLS

- Programming:** Java (Core Java, Multi-threading, Concurrency), Python (NumPy, SciPy, Pandas, Matplotlib, Flask, Seaborn, Plotly, Scrapy)
- Deep Learning:** PyTorch, TensorFlow, Keras, TensorRT, CUDA
- Machine Learning:** KNN, SVM, K-Means, Random Forest, XGBoost, LightGBM, Spark ML
- Tools & Platforms:** Linux, Docker, Vim, Jupyter Notebook, Google Colab, Git/GitHub, AWS (S3, EC2), LaTeX

### Certifications

- [AWS Certified Machine Learning – Specialty](#)
- [Deep Learning Specialization](#)
- [Mathematics for Machine Learning and Data Science Specialization](#)

EDUCATION

Apr 2021 — Mar 2023	<div>Master of Engineering, Technology Management for Innovation, The University of Tokyo</div> <div><ul style="list-style-type: none"><li>Master’s Thesis: <i>Using Large Language Models for Zero-Shot Definition Modeling</i> – Evaluated and compared various LLMs on their ability to generate definitions, contributing to advancements in NLP and knowledge representation.</li><li>Advised by: Professor Yutaka Matsuo, a leading expert in AI and machine learning.</li></ul></div>
Aug 2016 — May 2019	<div>Bachelor of Science in Journalism, Northwestern University</div> <div><ul style="list-style-type: none"><li>Merit Scholarship Recipient</li><li>Journalism Residency: Finn Partners, New York – Focused on data-driven storytelling and analysis.</li></ul></div>

LANGUAGES	Japanese (N1)	Highly proficient	Arabic	Very good command
	Mandarin	Native speaker	Taiwanese	Native speaker
	English	Native speaker		

AWARDS/GRANTS	<div>Japan Taiwan Exchange Association Scholarship</div> <div><i>2022-2023 recipient, demonstrating dedication to cross-cultural collaboration and academic excellence.</i></div>
	<div>JASSO Scholarship</div> <div><i>2021-2022 awardee, showcasing academic prowess and commitment to international education.</i></div>
	<div>Dr. Lin Tsung-I Foundation Scholarship</div> <div><i>2021 recipient, reflecting academic achievement and contributions to the scholarly community.</i></div>
	<div>AI Artathon participant</div> <div><i>Recognized for outstanding contributions, and invited to Saudi Arabia with a complimentary flight, in 2021.</i></div>
	<div>Full scholarship recipient from Qatar Science &amp; Technology Park</div> <div><i>Entrepreneurial trip to Silicon Valley, USA, in 2018, exemplifying commitment to innovation and professional development.</i></div>
	<div>Full scholarship awardee by Northwestern Global Engagement Studies Institute</div> <div><i>Internship in Vietnam, 2018, showcasing dedication to global experiences and practical learning.</i></div>
	<div>Undergraduate Language Grants</div> <div><i>Studied Arabic at the American University in Beirut, in 2017, highlighting a linguistic and cultural proficiency commitment.</i></div>
	<div>Buffett Supplemental Research Grants</div> <div><i>Awardee, 2017, recognizing dedication to cutting-edge research and academic inquiry.</i></div>
	<div>Taiwan OpenStack Application Hackathon Technical Recognition</div> <div><i>Recipient, 2016, demonstrating technical expertise and excellence in the field.</i></div>