

# Taichi Kato

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## EDUCATION

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**Amherst College** | B.A. in Computer Science and Mathematics | *Amherst, MA* *Expected: May 2024*

- **Major GPA: 3.85/ 4.00** | Cumulative GPA: 3.75 / 4.00 | **Davis Scholar**
- **Relevant Coursework:** Graph Theory, Probability and Computing, Combinatorial Optimization, Linear Algebra, Data Structures, Artificial Intelligence, Systems, Networks, and Advanced Microeconomics
- **President** of Blockchain Club and Japanese Culture Club. Member of Crew Team and Trading Club

**United World College of South East Asia** | International Baccalaureate Diploma | *Singapore* *May 2020*

- **GPA:** 43/45 (98<sup>th</sup> percentile)

## EXPERIENCE

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**Microsoft** | Software Engineer Intern | *Redmond, WA* *June 2023-Present*

- Designed, developed, and maintained data-driven reporting assets for the Finance Data & Experiences team, utilizing data analytics to enhance financial management and business decision-making.
- Developed a time series analysis pipeline with R, Spark, and Python, facilitating robust profit and resource forecasting models.
- Implemented a back-testing and model selection pipeline using Spark on a distributed computing system, optimizing the performance of data-intensive operations.

**Microsoft** | Software Engineer Intern | *Redmond, WA* *June 2022-August 2022*

- Developed RESTful APIs for visualizing third party compliance and fraud risk for due diligence
- Deployed statistical models as **Azure** microservices using **C#.NET**.
- Reduced human review hours by **18,000** per month with cost-savings of **\$3M** from prevented fraud cases.

**Amherst College** | Analyst Intern | *Amherst, MA* *June 2021-August 2021*

- Created forecasting models for an entrepreneurship program at Amherst.
- Collected qualitative and quantitative data from rival institutions, and created a suggestion for establishing a program at Amherst.
- Presented the analysis and suggestions to the Amherst College President.

**Questo AI** | Software Engineer (Co-founder) | *Singapore* *November 2016-August 2020*

- Developed proprietary language model for generating questions from texts and images, using **Python** and **C**.
- Deployed the model as a web API to a distributed system using **Kubernetes**.
- Designed and developed an iOS interface for a image processing model using Swift.
- Generated **\$56,000** in revenue, received **\$160,000** in grants from Google and IBM, and generated **8,000** downloads.

**University of Tsukuba** | Machine Learning Research Intern | *Tsukuba, Japan* *July 2018-August 2018*

- Developed a model to extrapolate 2D images to 3D voxels using a Generative adversarial network (**GAN**) with **PyTorch**. Advised by Professor Ochiai. Presented a poster on the research.

**Mercari, Inc.** | Software Engineer Intern | *Tokyo, Japan* *June 2018-July 2018*

- Minimized the size of price prediction and object detection models **by 70%** using **Tensorflow** through quantization and pruning, allowing them to run on mobile devices without sacrificing accuracy.
- **Reduced the cost** required to process listings from **16 million** monthly active users
- Developed a service which gives real-time resell price predictions of objects via the iPhone camera.

**teamLab, Inc.** | Software Engineer Intern | *Tokyo, Japan* *June 2017-July 2017*

- Developed a data provider and state management framework deployed across all company iOS apps, using **Swift**.
- Was the youngest employee at 15 years old. Also given a full-time return offer.

## PROJECTS

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- **Solar Cell Material Discovery (2022):** Used evolutionary computing to create an approximate model for solar cell efficiency as a function of its quantum properties. Developed with **Clojure**.
- **UChicago Trading Competition (2021):** Developed a live **price model** for FX futures based on market quotes, interest rates data, and historical prices using Python. Created a market making bot to automatically place asks and bids following a risk limit.
- **Zipcall (2020):** Developed multi-client decentralised video-calling service using **React** and **Javascript**. **100K MAU**.
- **Kafka NLP (2020):** Developed the first-ever open-source implementation of dependency parsing on iOS
- **Bookworm (2019):** Awarded the Best Pre-University Hack Prize@NUS Hack'n'Roll (331 hackers); built a dictionary app which makes physical books interactive, using **OpenCV** and **React Native**
- **Photonify (2017):** **Awarded \$30,000** for Most Creative@SWSG2017 – (550+ hackers); built an app that analyses image composition, and displays real time guidance to improve mobile photography