

Shun Sakai

203-832-9152 | shun.sakai@duke.edu | [linkedin.com/in/shun-sakai-126a0416b](https://www.linkedin.com/in/shun-sakai-126a0416b) | github.com/sstfytss

EDUCATION

Duke University; GPA: 3.88

BSE in Electrical and Computer Engineering and Computer Science

Durham, NC

Expected May 2025

- **Relevant Courses:** Data Structures and Algorithms, Design and Analysis of Algorithms, Computer Architecture, Linear Algebra

Honors and Awards

- Huang Fellow, 1 of 20 students in the class of 2025 selected for fellowship, received funding and placement in lab (scienceandsociety.duke.edu/learn/undergraduate-programs/huang-fellows-program/)
- Selection to Mitou Program of the Japanese Government and Recipient of “Super Creator” Award for App FindYourBus (www.ipa.go.jp/jinzai/mitou/)
- Finalist, Sponsor Special Award, U22 National Programming Contest in Japan (u22procon.com/2019/report/)

EXPERIENCE

Humans and Autonomy Lab, Duke University

May 2022 – Present

Software Engineer/Research Assistant

Durham, NC

- Led development of a web application (Truze.ai) to streamline data cleaning process for machine learning algorithms
- Implemented upload, visualization, modification, and export features using Python/Dash and database with changelog system using PostgreSQL

BIG IDEAS LAB, Duke University

August 2022 – Present

Software Engineer/Research Assistant

Durham, NC

- Developing mobile application to serve as data collection platform for BIG IDEAS LAB using Swift and SwiftUI
- Integrated authentication and built Web API to interface with iOS and serve as data pipeline between Apple Watch and Azure SQL Server

Mitou Program Developer

June 2020 – March 2021

Program of the Japanese Ministry of Economy, Trade, and Industry

Tokyo, Japan

- Selected as 1 of 17 projects across Japan (1 of only 3 conducted by non-undergraduate/postgraduate students)
- Awarded \$27,000 in funding support
- Developed mobile app *FindYourBus* along with mentor from group of distinguished faculty and industry professionals
- Conducted trials at daycare facilities and schools in both Japan and the United States
- Selected as a “Super Creator” for “Outstanding progress during the program” (Award for select program members)

MinD in a Device

Dec. 2020 – Aug. 2021

Internship

Tokyo, Japan

- Selected as an intern by Assoc. Prof. Masataka Watanabe (University of Tokyo) at his company *MinD in a Device* which looks to upload the human consciousness into a device within 20 years
- Participated in group study of machine learning and pattern recognition using PRML by Christopher Bishop

PROJECTS

FindYourBus | *Mobile application to view location information of buses*

May 2019 – Present

- Used Swift and Google Maps API to implement user interface, account system, organization + route registration, and real-time vehicle location tracking, among others
- Used Firebase to setup real-time database to store organization data, route data, account data, and other app data
- Working with a large Japanese telecommunications company KDDI Corporation to develop and bring the application to Japanese schools in the United States

Truze.ai | *Data management tool to streamline data cleaning for ML algorithm training*

May 2022 – Present

- Led team to develop MVP in 10-week timeframe
- Used Python, Dash, and CSS to implement user interface and back-end features (dataset upload, delete rows/columns, find and replace, and dataset export with user-readable changelog)
- Used PostgreSQL to setup SQL server and to develop changelog to store front-end modifications

Sampo! | *Mobile application to record/share walking routes and view them using AR*

June 2021 – Present

- Used Swift and ARKit to develop front-end and features to record walking routes and view them using AR
- Integrated Firebase Realtime Database to store user walking route and account data

TECHNICAL SKILLS

Languages: Java, Swift, Python, PostgreSQL, HTML/CSS, C

Libraries/Platforms: Dash, Git, Firebase, pandas, NumPy, Matplotlib

Spoken Languages: English (Native), Japanese (Native), Spanish (Intermediate)