

# Tanay Gandhi

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## SKILLS

**Languages:** C#, Python, R, Java, C/C++, HTML/CSS, JavaScript, SQL, SAS, Unix Shell  
**Frameworks:** Git, .Net Core, MongoDB, Xamarin, React, CNNs, REST, SOAP, OAuth, Electron JS, PostgreSQL, SQLite  
**Coursework:** Data Structures, Database Management, Distributed Systems, Intro to Machine Learning, Applied Regression

## EDUCATION

**Arizona State University** | Computer Science B.S. | August 2018 – June 2022

- Minor: Mathematics
- GPA: 3.78

## WORK EXPERIENCE

**NSF REU Fellow** | NSF 311 Lab | Tempe, AZ | July 2021 – June 2022

- Contributed to analysis of data from Boston city's 311 reporting service to understand utilization disparity between communities of differing demographics
- Engineered visualization engine to display results of analysis using MongoDB, and ReactJS

**Software Engineer Intern** | L3Harris Technologies | Phoenix, AZ | August 2021 – January 2022

- Refactored legacy code for high value commercial aviation customer to improve system efficiency and future-proof project
- Revamped existing company database tool for mission critical system in order to process new data format

**Software Engineer Intern** | Garmin International | Scottsdale, AZ | May 2021 – August 2021

- Improved tablet-based in-flight calculation application by implementing service to sync offline calculations with company database
- Utilized Xamarin (.NET), SQLite, and REST API in development

**Aviation Chart Capstone Project** | Honeywell Aerospace | Tempe, AZ | January 2021 – December 2021

- Trained 2 machine learning models (yolo-cnn & fr-cnn) to label 24 specific regions of complicated FAA aviation approach charts
- Designed & built ReactJS web app to receive inputted chart image, send to labelling server, and display chart with clickable regions

**Software Engineer Intern** | Garmin International | Scottsdale, AZ | June 2020 – January 2021

- Authored .Net application to parse data from air traffic controller broadcasts from 250 airports into SQL database for internal use in commercial airline landing calculations
- Demonstrated to 25-person app development team potential improvements in department-wide server processing and monitoring using RabbitMQ technology with proof of concept product
- Expanded company's weather calculation services to cover 80% more of target country's airspace, helping retain multiple large airline customers by launching application to integrate new sources of weather data into data stream

## PROJECTS

**ASA Datafest 2021** | Best Use of Machine Learning award

- Performed using pandas, sklearn, numpy, and matplotlib python libraries on Jupyter notebook
- Parsed unstructured free text portion of U.S. survey on drug misuse containing 100,000+ responses
- Generated Bag-of-Words model, sentiment analysis, topic models, and logistic regressions on data divided into 6 age groups
- Analyzed trends of prescription drug misuse by age to determine how age affects sentiment, causes, and sources of Rx drug misuse

**COVID Lockdown Internet Speed Analysis** | Internet speed statistical analysis

- Collected home internet speeds immediately after COVID lockdown in March 2020 using shell script and performed hypothesis tests to determine whether AT&T U-verse was under-delivering on its speed claims

**ASA Datafest 2019** | Statistics Hackathon

- Analyzed large volumes of unstructured training and health data from the Canadian Women's national rugby team to generate insights about the effect of fatigue on gameplay, within 48 hours
- Performed statistical analysis, hypothesis tests on data using R, plotted conclusions using R's ggplot
- Developed predictive regression model to determine effective training routine based on health factors

## Extracurriculars

**Beta Chi Theta President** | President of the first South-Asian fraternity at ASU

- Planned, organized, and led multiple leadership, networking, and cultural events to prepare members for post-graduation