

Tianqi (Andy) Wu

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OBJECTIVE

Junior majoring in computer science seeking software engineering internship or co-op for summer & fall 2021.

EDUCATION

Washington University in St. Louis | St. Louis, MO

Expected Graduation: May 2022

First Major: Bachelor of Science in Computer Science **Minor:** Electrical Engineering & Systems Engineering
Cumulative GPA: 4.0/4.0 | Dean's List | Productive Scholarship in Engineering

Relevant Coursework: Software Engineering Workshop, Mobile Application Development, Introduction to Visualization, Database Management Systems, Artificial Intelligence, Parallel Computing, Cloud Computing with Big Data Applications, Object-oriented Software Development

PROFESSIONAL EXPERIENCE

Research Assistant, WashU Visual Data Analysis Group

Feb 2021 – Present

- Designing a visual analysis web application for tracing epidemic spread and identifying method of transmission on ~ **1 million** microblog messages
- Crafted keyword searching and geological filtering with **Flask** and **MySQL**
- Implementing user interface and data visualization features with **React-Bootstrap** and **D3.js**

Software Engineering Intern, Enhearten

Aug 2020 – Sep 2020

- Developed a cross-platform microblogging application **from scratch** for doctors to trace and analyze patients' mental health status and react immediately in emergencies
- Designed frontend features with **React Native** and **Expo**
- Implemented user registration/authentication and posting system with **Node.js** and **Firebase**

SELECTED PROJECTS

SafeMap - ST Hacks Hackathon

Jan 2021

- Led a team of four for a one-shot COVID risk management platform for Toronto population (~**3 million**) with visualizations of infection rates by community and personalized travelling recommendations
- **Won first prize** (out of 40 projects) and Wolfram Award
- Crafted visualizations and location search features with **Leaflet.js** and **Google Map APIs**
- Integrated frontend features with backend recommendation system

Movie Recommendation System with Netflix Data

Dec 2019

- Implemented a cloud-based movie recommendation system with collaborative filtering
- **Placed second** for the project competition with ~**30 groups** in terms of accuracy and performance
- Analyzed movie ratings data (~**80MB** plain text files) using **Spark** with Jaccard similarity measure
- Deployed the program for cloud execution on **Amazon EMR, EC2 & S3**
- Tuned hyperparameters and optimized code for cloud execution, improving overall efficiency by ~**50%**

Time-Management Application

Feb 2020

- Built a single-page web app for managing daily schedules with calendar, visualization, and alarms
- Implemented frontend features and visualization with **React.js** and **Plotly.js**
- Crafted backend features with **PHP** and **MySQL**

Spring4 - Personal Finance App

Dec 2019

- Led a team of four to build an iOS finance app for managing stock and budgets
- Designed data visualization features with **Charts**
- Implemented backend features with **Firebase** and **World Trading Data APIs**

TECHNICAL SKILLS

Languages: Java, JavaScript, Python, C++, MATLAB, HTML, CSS, Swift, SQL, PHP, C, Bash, Ruby

Frameworks & Libraries: React, D3.js, Angular, Express, Flask, React-Native, Spark, TensorFlow, Hadoop

Tools & Operating Systems: Linux, Git, Docker, Visual Studio Code, XCode, Eclipse