## JULIAN LIOANAG

## **Computer Science Student**

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## **EXPERIENCE**

## **TECDP Summer Intern**

#### Cigna

May 2021 - Aug 2021

Philadelphia, PA (Online)

 Lorem ipsum is placeholder text commonly used in the graphic, print, and publishing industries for previewing layouts and visual mock-ups.

#### Research Assistant

#### **RPI Undergraduate Research Program**

🛗 Jan 2020 - Present

▼ Troy, NY

- Co-authored an academic paper about improving SOTA datato-text generation.
- Developed data correction post-processing scripts in Python.
- Performed 500+ subjective evaluations using Amazon Mechanical Turk.
- Currently researching storyboard skeleton natural language generation.

## Fullstack Developer

### Smartrider: Rensselaer Center for Open Source

₩ Jan 2020 - Present

**♀** Trov. NY

- Co-founded an open source, all-in-one transportation app for RPI students on Android, iOS, and web.
- Released a stable prototype with Flutter framework and Firebase back-end.
- Created prototype UI for shuttle and bus scheduling panels using Flutter and Dart.
- Designed architecture for bus and rideshare models using Business-Logic Components (BLoC) pattern.
- Worked on bus transit functionality by creating a REST API and noSQL database.
- Built Firebase cloud functions for student-run ridesharing service using Hypertrack SDK.

## **Programming Team Member**

## **FRC Team 41 Robotics**

♥ Warren, NJ

- Worked on a 3D-printed drone using Autodesk Inventor and Raspberry Pi Zero W.
- Developed a touch screen GUI with Tkinter for an intuitive driver station used in competitions.
- Built basic HTML, JS & CSS front-end for a team-scouting application that analyzed 200+ teams at tournaments.
- Taught basic C++ programming to 10+ new members.

## **EDUCATION**

## B.S. in Computer Science

## Rensselaer Polytechnic Institute

▼ Troy, NY

- GPA: 3.34/4.0
- Courses: Data Structures, Fund. of CS, Computer Organization, Intro to Algo., Software Documentation & Design, Principles of Software.

## **LEADERSHIP**

# Executive Board Social Chair RPI Philippine American League

₩ Jan '21 - May '21

▼ Troy, NY

- Participated in weekly executive board meetings to discuss club status, develop future plans, and reflect on accomplished material.
- Created club-wide activities for general body meetings of 20+ participants.
- Organized intercollegiate event of 30 participants between Filipino culture clubs.

## **PROJECTS**

#### **FakeBlock**

- A deepfake detection browser-extension made with TypeScript and Tensorflow.
- Worked in a 4-man team using Scrum methodology.
- Created script for injecting collapsible DOM elements into websites.
- Designed dynamic results page UI with React and material-ui.
- Wrote unit tests with TS-Jest.

### Ongatchi - Tamagotchi that eats your music

- Created minimalistic GUI in Python with Tkinter library.
- Implemented Last.fm API to track users' music listening history.

#### wav-art

- Created generative art by processing .wav files in Python.
- Used pydub library to create normalized data points from soundwaves.
- Plotted data using a modular cellular automata algorithm and matplotlib.

## **SKILLS AND TOOLS**

- Languages: Python, TypeScript, JavaScript, C/C++, Dart, Java
- Tools: Git, Flutter, Amazon Mechanical Turk, Jupyter Notebook