

# Rahul D. Ghosal

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## EXPERIENCE

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### Ultimate Technologies Inc. (Nagano, Japan)

Apr 2019 – Dec 2019

Application Developer (Full-time)

- Designed, developed, tested, and distributed CLI tools in **Python 3**, which implement **MS Office APIs** for robotic process automation (**RPA**) in company's **printed circuit board design and simulation** services.
- Developed plugins in **JavaScript** that integrate **REST API** provided by Kintone (**cloud**-based SaaS) and style outputs using **Bootstrap** and custom **CSS**.
- Administrated company's Kintone domain, on-premise **FTP servers**, and **Docker** daemon.
- Proposed solutions based on **open-source software** and third-party APIs, saving approximately \$1000.
- Founded and led automation engineering team, while mentoring members on Python 3.

## PROJECTS

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### ASP.NET Core – React SPA Tracking Typing Speed and Accuracy

Jan 2019 – Present

Implements **edit distance algorithm** to score timed typing sessions, where users can select up to 154 different model texts to shadow. Stores scores in **MSSQL** database and visualizes user progress using **D3.js**.

Repo: <https://github.com/rdghosal/TypeOnWillie>

### Flask – React SPA for Audio Visualization and Recording

Dec 2019 – Feb 2020

Follows **MVC** architecture to provide **RESTful service** that queries third-party database and **visualizes** retrieved audio data. **User login** and sessions are saved to **PostgreSQL** database.

Repo: <https://github.com/rdghosal/WaveNative> | Site: <https://wave-native.herokuapp.com>

### CLI Web Scraper with Language Detection and Spellcheck

Nov 2019

Integrates **Selenium** to **scrape text** from a given website. Interfaces **Google Translate API** for language detection and spellchecks English text using an open-source module. Saves **cleansed data** locally as text or CSV file.

Repo: <https://github.com/rdghosal/Honyaku.py>

## SKILLS

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<b>Libraries / Frameworks:</b>	Flask, React, ASP.NET, Bootstrap, Selenium, Pytest
<b>Programming:</b>	Python, JavaScript, C#, TypeScript, SQL, CSS, HTML
<b>Tools:</b>	Docker, Heroku, Postman, Git, GitHub, Vim, ArcGIS, MS Office Suite
<b>Languages:</b>	English (native), Japanese (fluent), Chinese (conversational), Spanish (conversational), Bengali (conversational)

## EDUCATION

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### Masters in Global Environmental Studies, Kyoto University

Apr 2017 – Mar 2019

Concentration: Ecological Economics | GPA: 3.861

### Bachelor of Environmental Science, Rutgers University

Sept 2011 – May 2015

Minors: Japanese, Philosophy | GPA: 3.813, *Magna cum laude*

## COURSEWORK & CERTIFICATIONS

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**Algorithmic Design and Techniques**, UC San Diego via edX

Ongoing

**CS50's Introduction to Computer Science**, Harvard University via edX

Apr 2019 – Nov 2019