Rahul D. Ghosal

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EXPERIENCE

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

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 given website. Interfaces **Google Translate API** for language detection and spellchecks English text using open-source module. Saves **cleansed data** locally as text or CSV file.
Repo: https://github.com/rdghosal/Honyaku.py

SKILLS

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

EDUCATION

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

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

CS50's Introduction to Computer Science, Harvard University via edX   *Apr 2019 – Nov 2019*