

# Work experience and skills

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- Name: **UENO, MASAYOSHI**
- Specialization: **bioinformatics / Web development / pharmaceutical chemistry**

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I majored in chemistry and biochemistry at university, and then in pharmaceutical science and neuroscience at graduate school. After gaining experience in the education industry, I became interested in programming when the AI boom hit while I was studying at graduate school, and I started to teach myself Python. I worked as a SES for about six months at a startup in Tokyo, using Python/SPSS for analytical work. After that, I worked for about a year as the main programmer and environment builder on a project related to the data migration of the accounting system of a mega-venture company that was working on a CtoC app. After leaving the company, I became a freelancer and my main work is front-end/server-side development of web systems. My strengths are server-side development in Python & Django/Flask and front-end development in JavaScript/Vue.js, based on my experience to date. I have been involved in the development of accounting-related applications for about two years, so I have a certain level of knowledge of bookkeeping and accounting. I also have experience as a project manager (deciding on specifications, coordinating with customers, etc.). I also have experience in building infrastructure environments using AWS, although this was not a long-term project. I am also able to handle business correspondence in English. In recent years, I have been interested in web development related to machine learning and data science, and I would like to make such work the main focus of my career. In my free time, I am also involved in research as a researcher at a graduate school of pharmacy, researching the discovery of new pharmaceutical molecules using deep learning. I am working hard every day with the goal of improving my knowledge and practical skills through the synergy of work and research.

## Languages

- Python: 8 years (professional and university research)
- HTML: 7 years (professional)
- CSS: 7 years (professional)
- Bash: 7 years (professional and university research)
- JavaScript: 5 years (professional)
- TypeScript: 2 years (professional)
- R: 1 year (university research)
- C++: 1 year (university research)
- Perl: 2 years (university research)
- Julia: 1 year (university research)
- Fortran: 1 year (university research) I can write the following languages to some extent, having taught myself.
- PHP
- Ruby
- Go
- Java
- C#
- VB.Net
- Scala
- Rust
- C
- Haskell

## Libraries, frameworks, tools

- Web development
  - Server-side
    - Django/Diango REST Framework: 3 years
    - Flask: 1 year
  - Front-end
    - React: 1 year
    - Vue: 1 year
  - Infrastructure
    - Linux: 9 years
    - AWS: 5 years
    - Docker: 3 years
- Data science
  - Jupyter: 6 years
  - Numpy: 5 years
  - Pandas: 5 years
  - Matplotlib: 5 years
  - Seaborn: 5 years
  - Scipy: 2 years
  - Scikit-learn: 5 years
  - SPSS Modeler: 1 year
  - Machine learning/deep learning
    - TensorFlow: 1 year
    - PyTorch: 6 months
  - Biology/Chemistry
    - AlphaFold (protein structure prediction program): 2 years (used in university research)
    - Biopython (biomolecules): 1 year (used in university research)
    - PyMOL (molecular visualization tool): 2 years (used in university research)
    - AutoDock Vina (drug docking tool): 1 year (used in university research)
    - FASTA (sequence alignment): 2 years
  - Other
    - OpenAI API: 1 year

## Qualifications

- LPIC-1

- LPIC-2
- Fundamental Information Technology Engineer
- Oracle Master Bronze
- AWS Certified Solutions Architect Associate
- TOEIC 800

## Academic degrees

- Bachelor of Engineering (Chemistry)
- Master of Pharmaceutical Sciences (Pharmacy)

## Hobbies

Calligraphy / Travel and hot spring tours / Snowboarding / Ocarina

# Project

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Development of a news distribution web service (outsourced)

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## Period

2023/01 - 2023/08

## Details

I was involved in the development of a news distribution web service developed in-house. The main part of the work was the development of a program to generate news articles that is run periodically on AWS SAM (Serverless Application Model). Specifically, we implemented a function that could acquire data from the web using scraping, process it, and then distribute it as news articles on our company's website. In addition, we used OpenAI API (language: Python) provided by OpenAI, which provides ChatGPT, and were in charge of designing and implementing functions to tag the desired articles from among the many news articles and summarize news articles. In order to meet the customer's requirements, I used the OpenAI API to build a deep learning model using fine tuning, and was also in charge of designing and implementing a function that extracts only news articles that fall under the target category from a large number of news articles.

## Tools used

- Python
- OpenAI API
- BeautifulSoup
- Requests
- Matplotlib
- JavaScript
- Node.js
- Vue.js
- Docker
- AWS (SAM, Lambda, S3, EC2)
- MySQL
- Visual Studio Code
- Github

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## Accounting bookkeeping posting program creation and ERP customization using JavaScript (outsourcing)

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### Period

2021/08 - 2022/08

### Details

I was involved in creating a system that transfers accounting data from other accounting systems to the ERP called Netsuite. I also customized Netsuite using the language called SuiteScript and the Netsuite API.

### Tools Used

- JavaScript/TypeScript
- React.js
- Firebase
- Node.js
- Netsuite
- SuiteScript (Netsuite)
- Visual Studio Code
- Gitlab

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## Creation of system control script for chemical plant (outsourcing)

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### Period

2021/04 - 2021/05

### Details

I participated in a project to develop an AI system for temperature control of chemical plant reactors. I implemented the control program for the AI program in a shell script.

### Tools used

- Bash on Ubuntu
- Python3 on Ubuntu
- Docker on Ubuntu
- Bats (Bash testing framework)
- Pipenv (Python package management tool)
- OpenPyxl (Python Excel manipulation package)
- Visual Studio Code
- Github

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## Refactoring of AI-based Python system (outsourcing)

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### Period

2021/03 - 2021/04

### Details

A project to refactor an AI system written in Python. As a member of the project, I was in charge of refactoring the logging part. I was also in charge of implementing a log collection and analysis platform using Fluentd and AWS Athena/S3.

### Tools used

- Python3 on Windows10
- Visual Studio Code
- Loguru (Python logging library)
- Poetry (Python package management tool)
- Fluentd (log processing and collection tool written in Ruby)
- AWS Athena / S3 / Glue / Lambda / CloudWatch.
- Github



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## Development of cloud-based management accounting software (in-house service)

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### Period

2019/01 - 2021/08

### Details

I participated in the development of a cloud accounting web application with a focus on management accounting. The web application, which was implemented in Django, was replaced using Vue.js for the front end and Django REST Framework for the back end. As project leader, I was involved in deciding on the specifications while communicating directly with the client, and also took charge of the implementation myself, leading the development.

### Tools used

- Python3 on Ubuntu
- JavaScript on Ubuntu
- HTML5 / CSS3 / UI Kit (HTML/CSS framework)
- Vue.js
- MongoDB
- Django REST Framework
- Visual Studio Code
- AWS EC2 / VPC / Route53 / Lambda / API Gateway / CloudFront
- Gitlab
- Gitlab CI/CD
- RedMine

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## Development of a research paper sharing platform (SES)

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### Period

2019/1 - 2019/3 2020/12 - 2021/02

### Details

Participated in the development of a research paper sharing platform for research and educational institutions centered around universities as SES. Mainly in charge of front-end coding.

### Tools Used

- Python3 on Docker/CentOS
- HTML5 / CSS3 / JQuery / Bootstrap4
- Flask
- PyPDF
- PyFPDF
- PostgreSQL
- GitHub
- Redmine

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## Web service development for restaurant coupon site (contracted)

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### Period

December 2018 - May 2019

### Details

I participated in the development of a web service for a restaurant coupon site as an infrastructure builder. Starting with the estimation of operating costs, I was in charge of building the development environment, verification environment, and production environment on AWS in collaboration with the developers. I gained experience in building environments with load balancers and multiple instances, as well as DNS settings, through this project.

### Tools used

- AWS EC2 / VPC / IAM / CloudWatch / CloudTrail / S3 / Route53 / Certificate Manager

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## Development of a VUI app for parcel inquiries (commissioned)

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### Period

2018/10 - 2018/11

### Details

I participated as a tester in the development of a VUI (smart speaker) parcel inquiry app for general consumers. I progressed through communication in English with foreign engineers, including the creation of test codes and bug reports.

### Tools used

- JavaScript (to the extent of writing test codes)
- Visual Studio Code
- ngrok
- Actions on Google (development platform for Google Assistant-compatible apps)

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## Development of cloud-based management accounting software (commissioned)

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### Period

2018/07 - 2018/09

### Details

I participated in the development of a cloud accounting web application with a focus on management accounting. I was in charge of coding screen pages in collaboration with designers, infrastructure construction in the AWS environment, and server-side development using Django.

### Tools used

- Python3 on Ubuntu
- HTML5
- CSS3
- JQuery
- AWS EC2 / VPC (mainly server instance settings and network construction)

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## Accounting system migration to SaaS-type accounting system (commissioned)

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### Period

2018/05 - 2019/02

### Details

I participated in a project to migrate the accounting system of a mega-venture company that develops and operates CtoC apps. I was in charge of data processing and data import work to transfer the CSV data accumulated in the previous system to the new system, as well as the work to build the environment for the accounting system.

### Tools used

- Excel VBA
- Netsuite
- SuiteScript (a programming language similar to JavaScript that is used for NetSuite customization)

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## Web API development for a web application for proofreading (commissioned)

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### Period

2018/03 - 2018/04

### Details

I participated in the development of a web application for proofreading for a company that operates a major new graduate recruitment website. I was in charge of the development infrastructure for a web API that reads text, corrects typos, missing words, and incorrect Japanese, and returns the results in JSON.

### Tools used

- Python3 on ubuntu
- AWS EC2 (using Ubuntu AMI)

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## Sales log data analysis (SES)

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### Period

September 2017 - February 2018

### Details

As a data analyst (SES), I participated in a project at a venture company that operates a website for recruiting caregivers. With the aim of improving the company's sales performance, I carried out data analysis focusing on the sales activities of the sales department, including the telephone calls and call logs. Through this project, I was able to learn about the analysis environment in Python, visualization in Excel, and SPSS Modeler.

### Tools used

- Python3
- Numpy
- Pandas
- Scikit-learn (Python machine learning library)
- SPSS Modeler
- Excel
- Excel VBA



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## Migration of accounting system to SaaS-type accounting system (commissioned)

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### Period

2017/06 - 2017/08

### Details

We participated in a project to migrate the accounting system of a mega-venture company that develops and operates CtoC apps. We were in charge of the data processing and data import work required to transfer the CSV data accumulated in the previous system to the new system.

### Tools used

- Python3
- Jupyter Notebook
- Pandas
- Netsuite