

Software Developer | Japanese Linguist

### **Bio**

[matthewbieda.github.io](https://matthewbieda.github.io)

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### **Projects**

[jp-translate.cloud](https://jp-translate.cloud)

A state-of-the-art open source Japanese ⇌ English machine translation system.

Accompanied by a research paper.

### **Education**

**September 2020 - September 2021**

**Queen Mary University of London – MSc Computing and Information Systems (Distinction - 80%):**

**Dissertation title: Refining the state-of-the-art in Machine Translation, optimising NMT for the JA <-> EN language pair by leveraging personal domain expertise**

**Assessed modules:**

**Software Engineering:** Development methodologies, OOP, systems analysis and UML (96%)

**Computer Architecture & Networks:** Wide coverage of computer architecture & networking protocols (85%)

**Database Systems:** RDBMS theory, SQL, database modelling and implementation in Oracle (67%)

**Computer Programming:** Used Python, Jupyter and Pandas to create a Covid-19 tracking dashboard (88%)

**Security & Authentication:** Cryptography, encryption, hashing, digital signatures and authentication (88%)

**Cloud Computing:** Deployed a web application using AWS infrastructure, Python, Flask and the TFL API. Also learnt about virtualization, containerization and linux server administration (91%)

**Data Analytics:** Created a report using Python, Pandas, NumPy, Scikit-learn, Matplotlib and Scipy libraries to analyse the effect of ethnicity and social status on GCSE attainment using statistical machine learning (82%)

**Risk and Decision Making for Data Science & AI:** Bayesian networks and statistics for decision making (98%)

Additionally I studied algorithms, data structures and operating systems alongside my degree. I also enjoy problem solving websites such as Leetcode and Codewars.

**Harvard University – CS50x Introduction to Computer Science (April - December 2020 Self-Paced):**

Introduction to computer architecture, data structures, algorithms, C, Python, HTML, CSS, MySQL, Bootstrap and Flask.

**Harvard University – CS50's Mobile App Development with React Native (November 2021):**

Javascript, React, React Native, Redux, Asynchronous Redux, Deployment, Testing and optimization.

**Harvard University – CS50's Web Programming with Python and Javascript (January 2022):**

Python, JavaScript, and SQL using frameworks like Django, React, and Bootstrap. Topics include database design, scalability, security, user experience & deployment.

**Stanford University – CS106A Code In Place (April-May 2020):**

Completed a 5-week introductory online Python programming course based on material from the first half of Stanford's introductory programming course, CS106A.

Final Project (Space Invaders game in Python):

<https://compedu.stanford.edu/codeinplace/public/projects/0135.html>

**September 2015 – June 2019****University of Sheffield - BA Japanese Studies (2.1 Honours - 68%)****Including exchange year at Seijo University (Tokyo, Japan)****Dissertation title: Re-evaluating the role of Industrial Policy in Japan's "Economic Miracle" 1955-1973**

- Developed a high level of ability in reading, writing, speaking and comprehending Japanese. Also developed a strong working knowledge of classical and literary Japanese in addition to everyday usage.
- Significant focus on translation skills, learnt how to prioritise accuracy or readability dependent on the nature of a project. Also learnt how to tailor a translation for a particular audience.
- Developed a significant interest in the causes of Japan's post-war economic growth, culminating in my independent dissertation project.
- Obtained a strong understanding of Japanese corporate governance, human resource practises and labour law.

**September 2009 – July 2012****Reigate College (A-Level)**

English Lit - A\*, Mathematics - B, Biology - B, Chemistry - C

**September 2004 - July 2009****Wallington County Grammar School (GCSE)**

6 A\*s, 3 As, 3 Bs, 1 C

**Professional Work****December 2019 – September 2020****FCI Multiple Services (United States)**

- Through freelance translation of financial, medical and legal documents I have obtained experience of collaborating with a project manager in order to produce results within tight deadlines.

**January - February 2013****Coulsdon College**

- Invigilation of GCSE & A-Level examinations.

**Skills, Interests and Achievements**

- Natural languages: English(native), Japanese(fluent)
- Familiar with: x86 Assembly, C, C++, Python (Django/Flask), JavaScript (React), HTML, CSS, SQL, Bootstrap, Git, Cloud Computing (AWS), Docker, CI/CD
- JLPT N1 certified (December 2019: Grammar/Vocab: 38/60 Listening: 40/60 July 2019: Reading 24/60)
- 3D Modelling (Blender)
- I am a proficient self-taught guitarist
- I am a qualified PADI Advanced Open Water Diver