Matthew Alexander Bieda
Full-stack Web Developer & Japanese Translator

Bio
matthewbieda.github.io
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Projects
jp-translate.cloud
A state-of-the-art open source Japanese ⇋ English machine translation system created with OpenNMT.
Deployed manually on Digital Ocean using Streamlit.
Accompanied by a research paper.

Capstone
My blog developed with SQLite, Django, Bootstrap and Javascript. Featuring mobile-first responsive design.
Deployed with PythonAnywhere.

PERN Todo
A PERN (Postgres, Express, React, Node) stack application deployed on Heroku, built with a RESTful API
validated using Postman.

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 practices 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/FastAPI), JavaScript/TypeScript (React), React Native, Node (Express), HTML, CSS, SQL, Bootstrap, Git, Cloud Computing (AWS), Docker, CI/CD, DevOps
- 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