# Alexander Metzger

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#### **EXPERIENCE**

# **Gooey.AI** – Machine Learning Intern

Jun. 2023 – Present

- Artistic QR code generator: Made the 3rd most used tool by the company with 30k+ uses that has landed branding deals and social media exposure. Offered part time position for after internship.
- **Improved Translations**: Deployed models for 20 extra dialects and 100 extra languages, transliteration, and glossary features to support expansion into regions like Senegal and improve products in India.
- **Slack Bot**: Worked closely with partners like Zephyr to implement an automated tool to integrate custom Slack bots into Workspaces with custom data (Vector DBs), 200+ languages, and audio/video support.
- o Python: MLOps, Kubernetes, Docker, Google Cloud Platform, Django, and ML APIs e.g. OpenAI.

# **Akvelon** – Software Engineering Intern

Jun. 2023 – Aug. 2023

- o **Open source contributions**: to Microsoft Power BI across 2 visuals and 7 pull requests with test coverage.
- o Mentor's choice Leadership Award: Led team of 4 to contribute to 5 visuals across 20 pull requests.
- o **Applied contributions**: to analyze sensor data from a custom IOT device streaming data to the cloud.
- TypeScript/C++: Power BI Custom Visuals, Automated Testing, Embedded Systems, and Azure IOT Hub.

# **University of Washington ICTD Lab** – Undergraduate Researcher

Sep. 2022 – Present

- **eKichabi v2 Django Developer**: Managed the backend team for the eKichabi v2 project, shipped a USSD server and Android app via a digital intervention to connect 10K farmers in Tanzania.
- **Co-first authored eKichabi v2 paper**: A paper on scaling technological interventions in Sub-Saharan Africa submitted to ACM SIGCHI. Gave 50 minute talk to 40 researchers at the CHANGE Seminar.
- **Technological Consultant**: Maintenance, consulting and analyzing data for an economic impact analysis of eKichabi v2 by Dr. Anderson (UW), Dr. Dillon (Cornell), and Dr. Rudder (UChicago).
- o Python/Java: Jupyter, Django, MySQL, Redis, HTTP, REST and Android Studio.

# **Self Employed** – *Private Tutor*

May. 2022 – Present

- o **Provided lessons for 10 students**: 3rd-12th grade through a self-designed coding curriculum.
- **Cascade Enrichment Tech Lead**: Developed K-12 Assessment Software, designed Remote Certification process, and trained/certified 20+ educators. <u>JavaScript</u>, HTML, CSS, and Automation Software.

### **European Environment Agency** – Data Science Intern

Apr. 2020 – May. 2022

- o 3 Water Framework Directive Projects: Biodiversity, Water-flow, and Horizon Scanning.
- **Results used by the EEA and in 40 countries**: Data visualizations, model evaluations, literature review, reports, and presentations. Python, Pandas, PySpark, Azure ML Studio, Azure Databricks, and Excel.

#### **EDUCATION**

# University of Washington − 3.86 GPA, 3.98 in CS

Sep. 2022 – ca. Jun. 2025

BS in Computer Science and Mathematics, Design Build Fly Electric Engineer, UW Symphony Orchestra Violin 1

Bothell High School – Valedictorian (4.0 GPA), Varsity Science Olympian

Aug. 2018 – Jun. 2022

# **PROJECTS**

# WiFi RSSI – Windows App

Ian. 2022 – Feb 2022

3700+ downloads, 4.4/5 rating. GUI to calculate the RSS in dBm of available networks by analyzing WiFi packets and BSSIDs. Made for WA Science Olympiad to standardize evaluation of antennas made for new WiFi Lab event.

### **Attendance Scanner** – Web App

Aug. 2022 - Jun. 2023

Attendance system with QR-code enhancements, a SQLite database,  $\underline{\text{Braintree}}$  subscription system, and  $\underline{\text{OAuth2}}$ . Used by SYSO (my old youth orchestras of  $\sim 500$  people). Prototyped in 2 weeks, then turned into a commercial product in collaboration with Claire Li.  $\underline{\text{Firebase}}$ ,  $\underline{\text{Node.js}}$ ,  $\underline{\text{Express}}$ , and  $\underline{\text{Web Components}}$ .

#### PROGRAMMING SKILLS

Languages: JavaScript, TypeScript, Python, Java, C++, C#, SQL

6+ years

Tech: Google Cloud Platform, Payment APIs, React, OAuth2, MySQL, Docker, Unix, Git

3+ years