

Abdallah Mtavya
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SOFTWARE ENGINEER

Dedicated full-stack software engineer with a strong academic background and proven track record of delivering quality software in a fast-paced startup environment. Excels at researching and experimenting with new software technologies to quickly prototype, refine, and release new features. Experienced in Test-Driven Development, version control, continuous delivery, and continuous integration. Built new core features, and enhanced existing ones to drive up user satisfaction, user retention, and company revenue. Efficiently self-managed and collaborated as part of a hybrid remote and in-person multicultural team. Competent communicator. Superior knowledge of data structures and algorithms.

Backend Development • Frontend Development • Mobile Development • Test Driven Development •
Databases Agile/SCRUM • Debugging • Machine Learning

Languages:	Python, JavaScript, Typescript, Node JS, C++
Web:	HTML & CSS, Bootstrap, Tailwind CSS, Redux
Web Services:	RESTful, GraphQL
Web/AppServers:	Apache, AWS, Google Cloud
Frameworks:	Django, React, Next Js, Pytorch, Fast Api
Databases:	MySQL, MongoDB, Firebase, Pinecone, Qdrant, Redis
Design Patterns:	Singleton, Factory, Observer, Adapter
SDLCs:	Agile/Scrum, Waterfall
Tools:	Git, Docker, Sentry, Slack, Amplitude, Gather
Platforms:	OS X, Windows, Ubuntu

PROFESSIONAL EXPERIENCE

Elkpro Salon: February 2023- April 2023

Position: Frontend Engineer freelancer

- Implemented a map feature in a React app by integrating Google and Kakao maps, resulting in a 20% increase in monthly revenue and improved customer accessibility.
- Built a phone number verification system using Twilio to verify customer appointments in real time, leading to a decrease in fraudulent appointments.
- Added unit tests using Pytest that increased test coverage by 10% which helped catch critical bugs before production

Technologies Used: Python, Django, JavaScript, React, Next Js, MySQL, Redis, Typescript, Webpack, Git, Vercel, Docker.

Ryeboard: July 2020- December 2020

Position: Full-stack developer intern

- Developed a full-stack Chrome extension called Ryesnap that enable users to save website content to their boards in Ryeboard app. Built Ryesnap using Node.js, MongoDB, and React.js.
- Implemented algorithms for card connectors and alignment systems.
- Used Google Firebase functions to develop a system for sending notification emails to Ryeboard users every month using Node.js.
- Conducted continuous monitoring of user behavior and made necessary updates based on user feedback.

NOTABLE PROJECTS

IBM Watson-based Language Translator: April 2022- May 2022 | [LINK](#)

- Built a language Translator microservice using Python and Flask. Gained Experience in building, testing and packaging applications and using IBM cloud services to build AI powered app.
- Created a faster and more efficient CI/CD pipeline using Github actions and Cloud Fontry.
Technologies Used: Python, Flask and IBM Watson

Job Portal: May 2022- Present | [LINK](#)

- Developed a job portal app using Python and Django, facilitating job listing posting for employers and resume builder, job search and application functionalities for job seekers.
- Gained experience in containerization using Docker, as well as implementing Celery and Redis to enable efficient task processing and caching mechanisms.
Technologies Used: Python, Js, Django, Docker, Celery, Redis and IBM Watson

Bei Poa: Jan 2023- Present | [LINK](#)

- Built an online e-commerce website for second-hand electronic devices using React.js, HTML/CSS, and microservices to create an easy and interactive shopping experience for users.
- Implementation of functionalities such as product listing, searching and filtering, and shopping cart using Node.js and MongoDB, resulting in a streamlined shopping process.
Technologies Used: React, Node.js, HTML/CSS, Firebase and MongoDB

Vibez: July 2021- Present | [LINK](#)

- Vibez is a music streaming web app built on Node.js, ReactJS, Sass and MongoDB. Vibez is fully responsive and is hosted on Vercel. Gained experience in using AWS S3 buckets, and improved skills in Node.js, React and MongoDB
- Implemented seamless stale while revalidate technique using React cache and MongoDB database for optimal navigation experience.
Technologies Used: React.js, Sass, Node.js, AWS s3 buckets and Mongoddb

RESEARCH & WORKING EXPERIENCE

Deep Image Processing Lab – Korea University December 2021 – May 2022

<https://sites.google.com/view/deeplab/>

Position: Student Researcher

- Developed software to improve experimentation rate and decision-making.
- Created machine learning and statistical models for image denoising and super-resolution.
- Optimized in-house ML libraries and frameworks for multi-layered data sets.
- Designed proofs-of-concept to answer research questions.
Technologies Used: Linux, Python, PyTorch, Keras, AWS, Git, MATLAB, Docker, Azure

Smart Micro Grid Lab – Korea University July 2022 – December 2022

<https://ugrid.korea.ac.kr/>

Position: Junior Data Scientist

- Automating workflows using Python Scripts.
- Creating ML-based risk scores for automobile charging station sites.
- Predicting optimal locations of charging stations using ML algorithms.
- Dockerizing developed models for deployment.
- Extensively using LightGBM and XGBoost libraries.
Technologies Used: Python, Docker, TensorFlow, Linux, Git, and MATLAB.

EDUCATION

Korea University, Seoul, South Korea

Degree: **Bachelor of Science in Electrical Engineering**

Study Period: **March 2020 - February 2024**

GPA: **4.02/4.5 (Magna Cum Laude)**

Relevant Coursework:

- Databases (KECE44500), Data Structures and Algorithms (KECE20803), Internet Programming (KECE44600), C / C++ programming (EGRN15109), Engineering Mathematics I & II (KECE23102, KECE23204) , Fundamentals of Data Science (EGRN24100) , Calculus I & II (MATH16124, MATH16222), Computational Thinking (GECT00100), Probability and Random Process (KECE20902), Multimedia Signal Processing (KECE41800), Signals and Systems (KECE31301)

Sunmoon University, Cheonan, South Korea

Course: **Korean Language**

Study period: **March 2019 – February 2020**

Result: Test of Proficiency in Korean (TOPIK) **Level 5**

Additional achievement: **Class President of Korean Government Scholarship Class**

University of Dar es Salaam, Tanzania

Degree: **Bachelor of Science in Electrical Engineering**

Study period: **September 2018 – February 2019**

GPA: **4.4/5 (1 semester)**

Additional achievement: **Class President of Electrical Engineering Class**

PROFESSIONAL TRAINING

IBM Professional Training at Coursera Jan 2022 – July 2022

HONORS

Korea Global Scholarships, Seoul March 2019— February 2024

MoDewji Scholarship, Dar es Salaam August 2018 — February 2019

Korea University Academic Excellence Award, 2019

Seoul Korea University College of Engineering Dean's List Spring 2019, Spring 2020, Fall 2019,

LANGUAGES

English: Fluent **Korean:** Advanced **Swahili:** Native speaker

REFERENCES

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