Carey Nyein

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Python Developer

Software Developer with 2 years of experience as a Machine Learning Engineer and almost 1 year as a Junior Full-stack Web Developer in the IT and home automation sectors. Experienced working on Automatic Speech Recognition (ASR) system using Python, Django and TensorFlow and developing B2B web application utilizing ReactJS. Eager to embrace new technologies and thrive in high-pressure environments, along with prior knowledge and experiences, fully confident and able to contribute significant benefits to your organization.

Object Oriented Programming ● Machine Learning ● Natural Language Processing
CI/CD ● Single Page Application ● RESTful web services ● Database Design

Skills & Abilities

PROGRAMMING SKILLS

- Programming Language : Python, JavaScript (ES6+)
- Web Technologies : HTML, CSS, Bootstrap, AJAX, JSON, REST API
- Web/App Servers : Apache, NGINX
- Frameworks : ReactJS, NodeJS, Express.JS
- Database Technologies : MySQL, PostgreSQL, MongoDB
- Machine Learning Technologies : TensorFlow, NumPy, Pandas, Matplotlib
- SDLC : Agile, Waterfall, Scrum
- Tools : Git, React Redux, Jupyter Notebook, Jira
- Platforms (OS) : Windows, Linux

Professional Experiences

*CAREER NOTE: Completed on-campus studies and currently taking distance education courses to complete a **master's degree in computer science** (Available for full-time, W-2 employment).*

UMG MYANMAR, YANGON, MYANMAR (BURMA) 06/2020 – 10/2021

Myanmar's leading business organization.

AI/NLP Researcher (Equivalent to Machine Learning Engineer)

Research & Development in Natural Language Processing (NLP)

- Designed and implemented a Speech-to-Text application for Myanmar language using Kaldi.
- Utilized HMM-GMM and SGMM Machine Learning models to the Automatic Speech Recognition System (ASR) facilitating more accurate transcription of speech inputs.
- Performed comprehensive data pre-processing on both audio and text utilizing Python, ensuring high-quality input data to enhance model accuracy.
- Conducted research on RNN Deep Learning model to enhance the ASR, then applied on our own ASR resulting in a 25% improvement in model accuracy.
- Single-handedly developed a web portal for ASR using Django, PostgreSQL, Bootstrap, and JavaScript, enhancing the usability of the ASR system for testing and validation purposes.
- Implemented audio noise reduction using TensorFlow, improving the signal-to-noise ration for enhanced accuracy in speech recognition.

- Successfully deployed the Speech-To-Text (Myanmar) ASR web application using the mod_wsgi Apache module.

Technologies Used: *Python, JavaScript, Bootstrap, Django, PostgreSQL, Apache, Git*

IRRAHUB, YANGON, MYANMAR (BURMA) 10/2019 – 05/2020

Software development company outsourcing projects from both Singapore and Myanmar.

Junior Full-stack Web Developer

Played a key role in developing the KnapShot web application, with a focus on client-side data control.

- Created a data visualization component using ReactJS, NodeJS, and MySQL, improving data accessibility and supporting informed decision-making.
- Engineered an efficient data import/export process with an Excel macro, resulting in a 75% reduction in response time using ExcelJS module.
- Debugged and tested the web application using Jest, contributing to elevated code quality.
- Implemented responsive user interfaces using ReactJS and NodeJS ensuring best user experience for customers for KnapShot digital platform.
- Collaborated closely with project managers and senior developers to gather product requirements, ensuring alignment, and streamlining development processes and timely delivery of high-quality products.

Technologies Used: *ReactJS, React Material, React Redux, NodeJS, Sequelize ORM, NGINX, Git (Bitbucket)*

Academic Projects

MAHARISHI INTERNATIONAL UNIVERSITY (2023)

- **Audio Sentiment Analysis**: Implemented audio sentiment analysis application that analyzes the emotional tone or sentiment conveyed in audio recording. Heavily involved in data pre-processing, model selection and training processes. **Utilized** Keras, TensorFlow, RNN, LSTM, Bi-LSTM, Python.
- **Alumni Management Portal**: Built a web-based application designed to efficiently organize and manage the interactions and data of a university or educational institution's alumni network. **Utilized** ReactJS, React Material, Redux, Java, Spring Boot, MySQL
- **Cinemax Application**: User-friendly location-based application for managing movies, cinemas, booking and registrations. **Utilized** Angular, Angular Material, NodeJS, MongoDB, 2D-sphere Geolocation.

Education

MASTER OF SCIENCE IN COMPUTER SCIENCE (3.8 CGPA)

(In progress via distance education, expected completion: October 2025)
Maharishi International University, Fairfield, Iowa, United States of America

- Key Courses: Big Data, Machine Learning, Web Application Architecture, Modern Web Application, Web Application Programming

BACHELOR OF COMPUTER SCIENCE (4.5 CGPA)

University of Computer Studies, Yangon, Myanmar (2018)