

# AGRON KERCISHTA

## Senior Software Engineer | Senior Machine Learning Engineer

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### SUMMARY

10+ years experienced Software Engineer and 8+ years experienced Machine Learning Engineer with proven success in building web applications, successful algorithms & predictive models for different industries. Passionate engineer & thriving analyst with the ability to apply ML techniques & algorithm development to solve real-world business problems.

### SKILLS

**Language:** Python, C++, C#, JavaScript, R, HTML, CSS, XML, JSON, Java.

**Database:** Relational Database (MySQL, SQL), NoSQL Database (MongoDB, Dynamo Db).

**Frameworks/Libraries:** PyTorch, PySpark, Tensorflow, Keras, Scikit-Learn, Numpy, Pandas, Django, Flask, Spring Boot, Bootstrap, React.js, Node.js.

**Others:** Artificial Intelligence(AI), Machine Learning(ML), Deep Learning, Computer vision, NLP, Data Science, Reinforcement Learning, Neural Networks, Data Analysis, Algorithms, Data Structures, REST, Agile Methodology, GitHub, AWS, Azure, GCP, Hadoop, MATLAB, Lambda, S3, SNS, API, CI/CD, Postman, Kanban, Jira, Junit, Object Oriented Design, Microservices, Web Development, Software Development, MLOps, DevOps, Linux.

### WORK EXPERIENCE

**Senior Machine Learning Engineer & Software Engineer | Interplai | Ann Arbor, MI** 10/2021 - 12/2022

- Led a 10-member team in providing quality assurance for enterprise wide marketing management applications
- Developed an algorithm to understand customer behavior leading to 95% success in targeted marketing campaigns.
- Expertise in using PyTorch, TensorFlow, and Keras to train and deploy CNN, LSTM, and other Sequence models on Azure and AWS.
- Created machine learning program which identified broken sensors with 99% accuracy.
- Developed an application frontend for encoding and decoding videos the High-Efficiency Video Codec(HEVC) format.
- Created developer tools and documentation to enhance developer workflow.
- Deployed and managed the AWS platform and implemented the DevOps task.
- Collaborated with client teams to onboard new models and algorithms and design end to end data pipelines.
- Implemented various private APIs on a Node.js and MongoDB backend.

**ML & CV & NLP Engineer & Full Stack Developer | Distyl AI | San Francisco, CA** 10/2019 - 07/2021

- Designed and developed a new rule-based machine translation engine, which enhanced quality and processing time by 60%.
- Advanced the NLP integrations for the product 'DialoggBox' as add-ons for video conferencing platforms to provide with an interactive feel by adding models such as conversation summarization and skill extraction.
- Building, maintaining and optimizing end-to-end infrastructure to support automatic ad creation using computer vision and deep learning.
- Devised an innovative method to track lanes detected using machine learning across consecutive images and generate road lanes for HD mapping.
- Developed computer vision algorithms for generating HD maps from image and LIDAR data.
- Optimizations involved learning features that tracked well and prioritizing those features over others.
- Implemented the real-time recognition of Facial Action Units through the secondary development of the open source toolkit OpenFace, improving the offline calibration algorithm to be online to meet real-time requirement.
- Ideated and implemented the early machine learning and reinforcement learning models that learned when and to whom to display advertisements and offers based on each shopper's digital journey.

**Machine Learning Engineer & Data Scientist & Software Engineer | Sama | San Francisco, CA** 08/2017 - 07/2019

- The robot succeeded in learning 30 object classes on its own.
- Reduced the data extraction time by 40% through machine learning and python automation.
- Developed a hand motion gesture recognition and classification system by building a real time model to test on a drone using OpenPose and deep learning models like LSTM RNNs and 3 dimensional Convolutional Neural Networks.
- Proposed a novel head movement recognition algorithm using finite state machine based on the accurate estimation of the head pose, which transcended the traditional SVM algorithm in both accuracy and speed of recognition.
- Responsible for the firmware porting of the Gateway, Repeater, and Monitor devices in a wireless sensor network system to newer hardware.
- Developed the pipeline and backend for a web-based solution to update the firmware on the Samsung Smart Cameras.
- Focused on the latest trend - React, built several projects with Redux.
- Maintained the back-end server using Express.js for monitoring Ethereum smart contracts.

**Software Engineer & Machine Learning Engineer | Apple | Beijing, China**

07/2014 - 06/2017

- Used AWS Cloud Development Kit (AWS CDK) to implement the cloud infrastructure in Kotlin and built Lambda functions with Python.
- Contributed to adding and updating API endpoints using Laravel.
- Designed a general processor interface that extends the current input registration service to give users the flexibility to define and implement customized task processors to do the data pre-processing job.
- Worked on hosted experiment input management, which provides user-friendly interfaces to support developers to register, look up, send and delete experiment inputs for Raffia experiments by RPC calls.
- Wrote client and server code in Java, C#, JavaScript, CSS, and SQL.
- Maintain and developed multiple live websites & mobile apps developed using HTML, CSS, Javascript, JQuery, PHP, Ruby, C/C++, C# and MERN with 100% accordance to industry and company standards web app.
- Uplifted a machine learning project's predictive model precision by 10%.
- Reduced the data extraction time by 40% through machine learning and python automation.

**EDUCATION**

B.S. in Data Science | University of Michigan | Ann Arbor, MI | 08/2019 - 08/2021

B.S. in Mathematics & Computer Science | Tsinghua University | Beijing, China | 09/2010 - 06/2014