

# Maxim Dokukin

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Able to take in a lot of chaos and turn it into something manageable

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| [maxdokukin.com](http://maxdokukin.com) | [github.com/maxdokukin](https://github.com/maxdokukin) | [linkedin.com/in/maxdokukin](https://linkedin.com/in/maxdokukin) | [maxdokukin@icloud.com](mailto:maxdokukin@icloud.com) |

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## SKILLS

**Technical:** Python (TensorFlow, TensorFlow Lite, Pandas, Matplotlib, Selenium), C++, Java, R, SQL, Linux  
**Software Tools:** VS Code, PyCharm, GitHub, R Studio, Keil, Excel, MS Office Suite, G Suite  
**Communication & Collaboration:** Translate data findings into clear insights for non-technical teams, present results effectively, work well with cross-functional teams, and contribute to problem-solving

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## EDUCATION

**Bachelor of Science**, Data Science May 2023 - May 2025  
San Jose State University, San Jose 3.9 GPA

- Presidents, Dean's Scholar; AS Leadership Scholar; Phi Theta Kappa (Beta Epsilon Nu)

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## EXPERIENCE

**Machine Learning Engineer Intern**, Nuvoton, San Jose May 2024 - Present

- Increased sound classification model accuracy from 49% to 93%, delivering 30+ **deep learning models** (CNN, DNN, DS-CNN, LSTM) with **TensorFlow**
- Deployed ML models to the edge using **C++**, **Keil**, and **TensorFlow Lite**
- Reduced testing time by 50% by developing and implementing **automated testing** software for **A/B testing** on model performance evaluation
- Optimized ML workflow, improved accuracy, and accelerated deployment by automating **data preprocessing** and **training pipelines** with **Python**, **Seaborn**

**Machine Learning Intern**, Yandex, Remote May 2023 - Aug 2023

- Preprocessed **large datasets** (1M+ records) using **Pandas** and **NumPy**, ensuring data quality through **data mining** and **data cleaning**
  - Managed **data processing** on remote servers via **Linux** terminal, including file manipulation, **batch processing**, and **script automation**, up to 320GB daily
  - Performed **data visualization** with **Matplotlib** and **Seaborn**, aiding in the interpretation of neural natural language processing (**NLP**)
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## ON-CAMPUS INVOLVEMENT

**Officer**, Machine Learning Club, ML@SJSU Dec 2023 - Present

- Leading club projects with reinforcement learning, neural networks, classification, clustering, regression models, and model optimization using **TensorFlow**, **Keras**, and **PyTorch**

**Data Acquisition Team Lead**, BAJA@SJSU Oct 2023 - Present

- Leading a team in designing and deploying a **real-time data collection** system on the CAN protocol
- Integrating 19 sensors (speed, acceleration, RPM, temperature, suspension, steering wheel, GPS) to optimize vehicle performance through time-series analysis

**Upper Division Math Tutor**, San Jose State University Dec 2023 - Present

- Helping students with calculus, **statistical analysis**, hypothesis tests, and linear regression

## PROJECTS

- CalHacks 11.0**, Mentalityy (LLM agents) Oct 2024 - Present
- Developed an AI-driven **LLM**-based chatbot that emulates a caring friend via SMS messages, providing a personalized conversation-with-friend experience
  - For relevant and empathetic responses, integrated long-term memory (**MySQL**) and context-awareness allowing AI to recall interactions and schedule follow-ups
  - Enhanced AI's ability to deliver realistic, friend-like interactions with **memory-based retrieval** by designing 35 custom **prompts** for 9 tailored **LLM agents**
- LLM Auto Grader** Sep 2024 - Present
- Developed an **AI-driven** grading system leveraging Large Language Models (**LLMs**) to autonomously assess student submissions, integrating with Canvas via **Selenium**
  - Implemented modular components for grading **automation**, enabling accurate feedback generation and score tracking
  - Enhanced scalability and efficiency by incorporating verbose logging and configurable grading parameters
- C++ Library for Addressable LED** May 2020 - Present
- Designed intuitive interfaces for real-time control, enabling effortless adjustment of colors and brightness through serial port, **Alexa**, **HomeKit**, and **web platforms**
  - Developed a **C++** library for addressable LEDs that simplifies controls, allowing smooth, gradual transitions between colors and modes with efficient frame timing
  - Implemented **EEPROM** memory storage to retain LED state, ensuring seamless recovery of brightness levels, color modes, and configurations after power cycles
- [Personal Portfolio Website](#) Dec 2024 - Feb 2025
- Developed a personal [portfolio website](#) centered around **LLM** secretary (**OpenAI API**) that communicates with the backend through **TCP sockets**
  - **HTML**, **CSS**, **JavaScript (JS)**, **Python (Flask)**, **MySQL**, **Docker**, **Cloudflare Tunnels**, **Google Cloud Compute**
- Research**, LLM Applications for Mental Health Support Sep 2023 - May 2024
- Researched and evaluated Large Language Models (**LLMs**) for mental health
  - Focused on **model fine-tuning** for personalized responses, exploring the potential of artificial intelligence in mental health support
- Predictive AI**, Navigating Urban Safety Aug 2023 - Dec 2023
- Conducted **exploratory data analysis (EDA)**, data preprocessing, and **feature engineering** using Pandas and **Scikit-learn**, for a model that identifies crime hotspots in San Francisco
  - Leveraged **big data** from public safety records and integrated cloud computing resources (**AWS EC2**) for scalable model deployment
- Government Stock Trading Analysis and Performance Benchmarking** Feb 2023 - May 2023
- Led a data-driven analysis using **Python** and **R** to investigate stock trading behaviors of government officials, benchmarking against the S&P 500
  - Implemented advanced **scraping** techniques (**Selenium**) to collect 39,000+ transactions, applying cycle algorithms to group trades and estimate annualized percentage profits across stock buy-sell cycles
  - Identified potential insider trading patterns and high-performing individuals through regression analysis and binomial testing
- Dune Buggy Assembly** Aug 2017 - Aug 2019
- Built a full-size dune buggy from scratch in my garage at 16 years old
  - Developed **C++** software for collecting and processing data from speed, temperature, and fuel sensors in the onboard vehicle system