

Borislav Milkov

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github.com/borislav-milkov

Education

- **San Jose State University**

B.S. Computer Science

- GPA: **3.70/4.00**

- Coursework: Data Structures, Algorithms, Computer Architecture, Design Patterns, Bioinformatics, Database systems

San Jose, CA

Graduation December 2020

Work Experience

- **Buzz Solutions**

Machine Learning Engineer

Palo Alto, CA

June 2019 - Present

- Used **Tensorflow** to build and test a Mask-RCNN/FasterRCNN hybrid architecture for detecting 28 different faults in powerlines and towers. Used on more than **3 million** images taken by drones.
- Created an end-to-end solution on Google Cloud using **Kubernetes, Docker, and Cloud storage**, taking HQ drone images, processing them, carrying out inference, and then using the new images to retrain and redeploy a new version of the model.
- Optimized back-end query performance and scalability to undertake high loads (preprocessing millions of HQ images) and carry out model inference with a **3x performance boost with a 25% cost reduction**.
- Developed the Computer Vision model **API** and back-end to create a **\$1.5million** contract opportunity with a major power company and many potential future customers.
- Created a backend **pipeline** architecture with **kubeflow** used to process more than **70 Terabytes** of image data with a scaling capability to process orders of magnitude more data.

- **De Anza College**

Undergraduate Teaching Assistant

Cupertino, CA

August 2018 - May 2019

- Planned, led and graded Mathematics laboratory classes
- Mentored and trained dozens of new mathematics TAs
- Tutored groups and individuals in a center with over 100 daily student clients

Projects

- **Virtual reality real estate**

June 2015

- Developed a VR walk through of an unfinished building for an entrepreneurial real estate company. Used C# with Unity to create a prototype mobile application for use with Google cardboard, allowing potential clients to view and walk in apartments in an unfinished building.

- **Time series Stock prediction**

June 2018

- Deployed and combined an LSTM model in keras with gradient boosting regression models to predict company stock price movements. Incorporated sentiment analysis through natural language processing of tweets related to the companies with the twitter API

- **Expedia Kaggle Challenge**

August 2018

- Made predictions as to millions of future bookings through the use of decision trees, gradient boosting, and random forests with sklearn and optimized them with feature engineering through data exploration with pandas and numpy.

Skills

Languages: Python, JavaScript, Java. **Framework/Libraries:** Keras, TensorFlow, Pandas, Flask, scikit-learn, git, AWS, Hadoop, openCV, SQL, Docker, Kubernetes, Pyplot.