

# Dean Biskup

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## EDUCATION

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### University of Illinois, Urbana-Champaign

May 2022

*M.S. Electrical and Computer Engineering*

**Relevant Coursework:** Computer Vision (ECE 549), Detection & Estimation Theory (ECE 561), Machine Learning for Signal Processing (CS 545), Pattern Recognition (ECE 544NA)

Master's Thesis: *Flexible and lightweight toolbox for federated learning on edge devices*

Framework for running federated learning experiments on edge hardware, such as Nvidia Jetsons or Raspberry Pis.

Available: 📄 [ideals.illinois.edu/items/126776](https://ideals.illinois.edu/items/126776)

### University of Illinois, Urbana-Champaign

May 2020

*B.S. Electrical Engineering, Minor in Computer Science*

**Activities and Societies:** IEEE Eta Kappa Nu (HKN), ECE Student Advancement Committee (SAC)

## WORK EXPERIENCE

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### Machine Learning Engineer

June 2022 - Present

*Blue River Technology, Autonomy*

*Santa Clara, CA*

- Developed and own our intelligent labeling pipeline, which digests tens of millions of images from machines in the field and evaluates their usefulness for training models. This technology employs the fields of active learning, uncertainty estimation, and data science and directly contributes to our training datasets.
- Created and maintain testing pipelines that emulate performance on real hardware, evaluating model performance after compression and deployment.
- Researching, developing, and deploying SOTA vision networks, particularly for semantic segmentation.
- In-house expert on deployment using TensorRT to Nvidia hardware.
- Coordinating and defining data collection requirements for teams in the field.

### Data Science Intern

Summer 2021

*Blue River Technology, Autonomy*

*Sunnyvale, CA*

- Researched and developed an internal framework and tool to perform scalable analysis of image similarity on millions of images collected in the field, using both classical and machine learning methods.

### Software Development Intern

Summer 2019

*Citrix Systems*

*Raleigh, NC*

- Added email functionality using an in-house ShareFile API to an existing bot deployed in Amazon Web Services, and updated the bot's frameworks to the cross-compatible .NET core platform, allowing deployment to be moved to a Linux host reducing costs.

### Associate Engineer Intern

Summer 2018

*NIO*

*San Jose, CA*

- Developed a Python library and suite of test scripts to automate the testing and analysis process for environmental (DV/PV) testing of infotainment units. These scripts test infotainment hardware connectivity, thermally stress the CPU, and record relevant data from cameras based on automotive test specifications.

## SKILLS

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**Human Languages:** English, Mandarin Chinese

**Programming Languages:** Primarily Python and C++

**Tools and Software:** PyTorch, TensorRT, Amazon Web Services, Git, SQL