Bennett Dell Norman

EDUCATION:

M.Eng Computer Science @ Cornell Tech — August 18' - May 19'
B.S. Computer Science (Music Minor) @ Cornell University — August 14' - May 18'

TECHNICAL SKILLS: Python • Pandas • Sklearn • Docker • posgis • PyTorch • Arduino • Processing • Grasshopper • Rhino

EMPLOYMENT:

- **Data Scientist | Envelope** — July 19' - Present

Envelope combines predictive analytics with the most accurate 3D modeling of zoning laws to identify land acquisition opportunities. I create models to predict and understand real estate price and demographic changes of cities.

- **Data Engineering Intern | Department Of City Planning NYC** — June 19' - August 19'

Worked on the ETL of NYC public datasets including the city's parcel, facility and environmental review datasets. I also volunteered at planning community hearings.

- **Research Associate | Jenny Sabin Design Lab** — June 16' - June 18'

Worked on a software project called RoboSense that enables architects to easily design and use intelligent Arduino controlled end effectors for 6 axis robots in Grasshopper and Rhino. Co-authored two papers that were accepted to SimAUD 2016 and Acadia 2018.

- **Machine Learning Intern | Autodesk** — June 17' - August 17'

Implemented a variational autoencoder to encode Generative Design shapes as vector representations to calculate similarity and cluster 3D generated models. Utilized traditional computer vision techniques for shape vector representation. Researched a 3D model recommendation system.

PUBLICATIONS:

- **Robosense 2.0: Robotic Sensing and Architectural Ceramic Fabrication | Acadia 2018** — October 18'

Presented the paper in Mexico City and received a Student scholarship award.

- **Matrix Architecture: 3D-Printed and Simulated Kirigami Matrices & Auxetic Materials | SimAUD 2017** — May 17'

PROJECTS:

- **Urban Planning Startup Studio | Cornell Tech** — Jan 19' - May 19'

Our company Collate provides realestate developers fast and robust socio economic analysis of their building projects. Large building projects in NYC must produce a report on how their project will impact the socioeconomics of the neighborhood. Producing this report can take up to a year and cost a million dollars.

- **Image Captioning Machine Learning Research | Cornell University** — August 17' - May 18'

I worked on a research project to improve image captioning by implementing a loss function that computers semantic similarity between captions using Word Movers Distance. We were advised by Professor Kilian Weinberger.

COURSES: Startup Studio • Data Science in the Wild • Advanced Topics in Machine Learning • Machine Learning for Intelligent Systems • Machine Learning for Data Science • Computer Vision • Analysis of Algorithms • Data Structures • Object Oriented Programming • Functional Programming • Discrete Mathematics • Digital Logic • Linear Algebra • Data-Driven Web Applications

ORGANIZATIONS:

Cornell Outdoor Education, Cornell Jazz Ensemble, National Outdoor Leadership School

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