

## Seth T. Howells

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### EDUCATION

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#### **Lewis University**, Romeoville, IL

Master of Science Data Science, concentration Computer Science anticipated 08/2022

GPA 3.92

#### **West Virginia University**, Morgantown, WV

Bachelor of Science in Business Administration, concentration Global Supply Chain Management received 05/2017

### EMPLOYMENT

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#### **Lewis University, MSDS Capstone Project**

01/2020 – 08/2022

Romeoville, IL

- Developed approach toward point cloud creation from calibrated single-view monocular images by leveraging vision transformers and compared results to fully connected convolutional neural network depth maps.
- Coded python script for pixel-to-voxel transformation from OpenCV and Open3D modules and MiDaS.
- Generated virtual reality scene with pixel-to-voxel transformations by utilizing MiDaS depth estimation and configuring OpenCV projection matrix (Q) from intrinsic camera matrix (K).
- Submitted paper for publication in (ICECCME) International Conference on Electrical, Computer, Communications and Mechatronics Engineering for 2022 conference.

#### **Bank of New York Mellon, Corporate Actions Analyst**

02/2020 – Current

Pittsburgh, PA

- Created Python and VBA scripts to automate security allocation processes that reduced time-spent by 85%.
- Integrated daily Excel ad-hoc report processing with in-house and DTCC terminal emulators for optimal automation.
- Developed Python and VBA scripts to automatically analyze, remove, and append textual data to Financial Offering documents resulting time reduction of 95% in reformatting processes.
- Identified all eligible holders, developed, and ensured distribution related to corporate market events complex with timely escalations for valid reconciliation.
- Researched corporate action events using DTCC database to convey accurate Offerings' information to Holders while scanning daily for new/updated data.
- Nominated to leadership roles with mentoring development of new hires and establishing cross-training sessions for transnational departments.

#### **Elite Transit Solutions, LLC, Logistics Manager**

05/2017 – 02/2020

Pittsburgh, PA

- Mid-level manager overseeing +\$5M book-of-business and leading 10-member team.
- Acted as first point of contact for one-third of total clients with clientele ranging from small shippers to Fortune 500.
- Liaison between C-level executives and operations team leaders to monitor financial health of the company sales.
- Conducted monthly and weekly meetings with clients' Directors of Transportation and Transportation Managers.
- Played integral role in smooth transition and launch of in-house TMS – technology suite

### PROJECTS

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**Human Pose Estimation:** MediaPipe, MoveNet – detect finger count, hand position, eyesight direction

**Facial Recognition:** DeepFace, OpenCV, MediaPipe – detect age/gender/race/emotion, verify face match

**Point Clouds:** Open3D - octree node-child levels, outlier detection, RANSAC plane segmentation, K-Means

**Object Detection:** TensorFlow, Pytorch – count/detect objects, create custom object detection with Supervised ML

**CV Basics:** OpenCV – edge/contour detection, color segmentation, K-means, thresholding, detect motion

**Machine Learning:** TensorFlow, PyTorch, Keras – various classification, predictions, clustering analysis

**Network Visualization:** Gephi – social media data mining and mapping of edge node relationships

**Interactive Visualizations:** Processing (Java), various Python libraries – geospatial analysis, clustering, stories