

Alissa Ostapenko

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SUMMARY & SKILLS

Self-driven, highly organized and motivated student with a passion for AI research and software development. Quick learner striving to build data-driven tools for impactful applications in health, finance, and technology.

Programming Languages: Python 3, SQL, Java 8, MATLAB, C/C++, HTML, NodeJS

Databases: Oracle, PostgreSQL, MongoDB, Java DB/Apache Derby

Frameworks & Toolkits: scikit-learn, pandas, numpy, Flask, Docker, PyTorch, spaCy, PIL, Kaldi

EDUCATION

Worcester Polytechnic Institute (WPI), Worcester, MA

B.S., Computer Science & Mathematical Sciences • GPA 3.95/4.0

August 2016 – May 2020

HONORS & AWARDS

Clare Boothe Luce Scholarship

WPI Two Towers Prize

Presidential Scholarship

EXPERIENCE

State Street Financial Services, Boston, MA

June – August 2019

Cognitive Software Engineering Intern

- Core developer of orchestration service integrating Voice to Text and Amazon S3 storage services (Python3, Flask)
 - Designed and programmed database schema to track file and job metadata (PostgreSQL)
 - Worked with State Street (S.S.) developer team in Austin, deployed service to State Street's internal cloud.
- Developed a sentiment analysis model for labeling positive and negative content within meeting transcriptions.

Vestigo Ventures & WPI¹, Cambridge, MA • Worcester, MA

March – May 2019

Data Analyst Intern

- Developed FinDX, a machine-learning driven tool for classifying a company's business domain from its website (Python 3, NLTK, spaCy). Built novel web crawler and part-of-speech based parser, improving F1 classification score by 5% over Vestigo's previous baseline.
- Tool was developed for financial technology services but can be extended to any business domain.
- Tool currently integrated in Vestigo's data processing pipeline.

The Johns Hopkins Whiting School of Engineering², Baltimore, MD

June – August 2018

Undergraduate Researcher (Fifth Frederick Jelinek Memorial Summer Workshop for Speech and Language Translation)

- Implemented a novel attention-based encoding technique for multimodal machine translation, significantly improving alignments between words in the text and regions in the image (PyTorch).
- Wrote a script to qualitatively evaluate image-text associations produced at model test time (Python 3).
- Presented research at a final presentation to industry sponsors including Google, Facebook, & Microsoft.

Smartvid.io, Cambridge, MA

May – August 2017

Research Assistant Intern in Computer Vision

- Designed data collection experiments using Amazon Turk (AWS).
- Built multilayer perceptron classification models to identify and label target objects in an image (scikit-learn). Code was officially submitted into the company codebase.
- Utilized image processing techniques to analyze and label image data (Python 3, PIL) for training models and for evaluating their performance; presented results in biweekly Scrum meetings.

PUBLICATIONS

¹FinDX: A Versatile, Low Resource Approach to Financial Website Classification, Ostapenko et al. Third International Workshop on Big Data for Financial News and Data, IEEE Big Data (in proceedings), (accepted Oct. 2019)

²Read, Spot and Translate: Specia L, Wang J, Lee S. J., Ostapenko A., Madyastha P, Springer Machine Translation Journals. (accepted Nov. 2019)

ACTIVITIES

Iceland Project Center Initiative, WPI & Reykjavik, Iceland

Spring & Fall 2018

- In a team of four, met with directors of nonprofits, government organizations, and museums to establish connections for future social science project partnerships between WPI students and Icelandic organizations.
- Thoroughly investigated accommodations, expenses, tourism, and travel logistics for future WPI students completing projects in Reykjavik.

Teaching Assistant (Object-Oriented Programming; Linear Algebra II)

October 2018 – March 2019

Honor Societies: Pi Mu Epsilon, Upsilon Pi Epsilon