Paul Nguyen

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TECHNICAL SKILLS

Primary Languages: Python, Javascript, D3JS, PostgreSQL, Common LISP

Secondary Languages: ReactJS, MSSQLServer, SPARQL, C/C++, Bash, HTML, CSS

Tools: PyTorch, Scikit-Learn, NumPy, SciPy, Pandas, NetworkX, Matplotlib, JIRA, Jenkins, SVN, Git

INDUSTRY EXPERIENCE

Anaconda Austin, TX

Open Source Software Engineer (Metagraph Team) *Feb 2020—Present*

- Implement graph neural network algorithms, e.g. GraphSAGE, graph2vec, node2vec, LINE.
- Design and build system for efficiently translating between graph data representations on CPU and GPU.
- Investigate & research graph algorithms based on linear algebra/matrix operations (as opposed to traversal).
- Build interactive web interface (D3.js) for exploring hardware backends compatible with various algorithms.
- Day-to-day tools include Python, PyTorch, NumPy, Pandas, SciPy, Scikit-Learn, Javascript, and JupyterLab.

Cycorp Austin, TX

Lead Data Integration Engineer & Semantic Knowledge Graph Engineer *Feb 2017—Feb 2020*

- Built a deep-learning NLP model for word-sense disambiguation in our open information extraction system.
- Independently rebuilt compiler to translate from our knowledge graph language (CycL) to SQL & SPARQL.
- Maintained & extended proprietary knowledge graph engine and SQL query optimizer.
- Built & designed distributed knowledge graph search and ETL engine to boost data processing by 18-24x.
- Managed and mentored 3 data integration team members.
- Day-to-day tools included Python, PyTorch, SQL, Common LISP, JIRA, test-driven development, and Scrum.

University of Virginia Charlottesville, VA

Graduate Computer Graphics Researcher

- Designed domain-specific language and compiler for image processing program analysis and optimization.
- Published in ACM Transaction on Graphics and presented at ACM SIGGRAPH.

SIDE PROJECTS

Google Play App Review Classification Github Repo

- Implement & compare 15 pre-trained PyTorch transformers models (e.g. BERT) for classifying app reviews.

Anime Recommender System Github Repo

- Implemented & compared deep neural recommenders against matrix factorization for recommending anime.

EDUCATION

University of Virginia Charlottesville, VA

Master of Computer Science

Washington & Lee University Lexington, VA

B.A. Mathematics, B.S. Computer Science