

# Paul Nguyen

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## TECHNICAL SKILLS

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

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

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

## INDUSTRY EXPERIENCE

### Anaconda

Open Source Software Engineer ([Metagraph Team](#))

Austin, TX  
Feb 2020—Present

- Design and build system for efficiently translating between graph data representations on CPU and GPU.
- Implement deep-learning on graphs algorithms, e.g. GraphSAGE, graph2vec, node2vec, LINE.
- Build & maintain reactive web interface for exploring hardware backends compatible with various algorithms.
- Day-to-day tools include Python, PyTorch, NumPy, Pandas, SciPy, Scikit-Learn, Javascript, and JupyterLab.

### Cycorp

Lead Data Integration Engineer & Knowledge Graph Engineer

Austin, TX  
Feb 2017—Feb 2020

- Independently rebuilt compiler to translate from proprietary knowledge graph language to SQL & SPARQL.
- Built an LSTM+Attention model for word-sense disambiguation (NLP) in our information extraction system.
- Maintained & extended proprietary knowledge graph query 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, functional programming, Common LISP, JIRA, TDD, and Scrum.

### University of Virginia

Graduate Researcher

Charlottesville, VA

- Designed domain-specific language for image processing program analysis and optimization.
- Implemented language via a source-to-source compiler from Python to C/C++.
- 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.

### Reuters Newswire Multi-label Topic Classification

[Github Repo](#)

- Implementation & comparison of CNN vs RNN/LSTM+Attention vs MLP for Newswire article classification.

## EDUCATION

### University of Virginia

Master of Computer Science

Charlottesville, VA

### Washington & Lee University

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

Lexington, VA