Peter Goldsborough

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WORK EXPERIENCE

- **Facebook**, London, UK 05/2017 — Present
  Intern, Real Time Systems
  - Optimizing highly distributed real time infrastructure at the core of Facebook.
- **Mindi**, London, UK 04/2017 — 05/2017
  Research Intern
  - Deep reinforcement learning for data center scheduling and load balancing.
  - Researched time series prediction with (recurrent) neural networks.
- **Bloomberg**, London, UK 11/2016 — 04/2017
  Intern, Instant Bloomberg
  - Worked on distributed message tracing in the Instant Bloomberg (IB) messaging system.
  - Wrote a network traffic simulation tool that produces messages to Apache Kafka message queue clusters.
- **Google**, London, UK 08/2016 — 11/2016
  Intern, gTech
  - Built chatbots in Go, using natural language processing.
  - Created a web platform to showcase Google's ad technologies.
- **Technical University Munich**, Germany 04/2016 — 09/2016
  Research Assistant, Chair for Database Systems
  - Investigated interprocess communication techniques for low-latency transmission of database queries.
  - Wrote a software library that replaces domain sockets by injecting a shared memory transmission channel.
- **Klagenfurt University**, Austria 10/2014 — 07/2016
  Research Intern, Institute of Networked and Embedded Systems
  - Applied machine learning to Non-Intrusive-Load-Monitoring (NILM) in Python and C++.
  - Invented custom $O(N \log N)$ clustering algorithm to replace existing $O(N^2)$ solution.

PROJECTS

- Lead a team of 12 students to develop an architecture-independent assembly simulator in C++14 and Qt5 supporting RISC-V, x86 and ARM ISAs.
- clang-expand is a clang and LLVM based tool to inline function calls and expand macros in C, C++ and Objective-C for visual benefit and easier refactoring. Featured in LLVM Weekly 169.
- lru-cache is a least-recently-used (LRU) cache implementation in C++.
- Talks on *Deep Learning with TensorFlow* at PyCon UK, Python Munich and PyData London.
- All my projects can be found at github.com/goldsborough.

EDUCATION

- **Technical University of Munich (TUM)**, Germany 10/2015 — Present
  B.Sc. in Computer Science
  - Top 5% in all courses.
  - Awarded German National Scholarship (1% of applicants admitted).

PUBLICATIONS

- *A Tour of TensorFlow*, Peter Goldsborough, Aug. 2016 — arXiv:1610.01178
- *NILM: A Review and Outlook*, Christoph Klemenjak, Peter Goldsborough, Sep. 2016 — arXiv:1610.01191