# Kirk Easterson

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## Education

**KTH Royal Institue of Technology**　　　　　　　　　　　　　　STOCKHOLM, SWEDEN
*Masters of Science - Computer Science*　　　　　　　　　　　　*Aug 2019 – Jun 2021*
**Stony Brook University**　　　　　　　　　　　　　　　　　　NEW YORK, USA
*Non-Matriculated Graduate Student*　　　　　　　　　　　　　*May 2017 – May 2019*
**State University of New York at Fredonia**　　　　　　　　　　NEW YORK, USA
*Bachelors of Arts – Applied Music*　　　　　　　　　　　　　*Aug 2012 – May 2015*
**MIT Experimental Learning**　　　　　　　　　　　　　　　MASSACHUSETTS, USA
*Certificate Course: Big Data and Social Analytics*　　　　　　　*May 2016 – Aug 2016*

## Experience

**Maharam** – *Applications Engineer Intern*　　　　　　　　　　*Mar 2019 – Aug 2019*
- Wrote Java to assist with data migration from BBj to SQL Server
- Rewrote original code to achieve6 times more efficient data transfer

**Freelance** – *Programmer*　　　　　　　　　　　　　　　　*Sep 2018 – Nov 2018*
- Reformatted over 4,000 lines of Python data science modules into Cython
- Implemented contiguous memoryviews to improve efficiency in accessing NumPy arrays

**Gentoo Linux** – *Translator*　　　　　　　　　　　　　　　*May 2018 – present*
- Contributed to an open source, volunteer-driven Linux distribution
- Translated over 50 pages of documentation and handbook into Swedish and Norwegian

**Fire Rescue Systems** – *Software Engineer Intern*　　　　　　　*May 2017 – August 2017*
- Wrote code and documentation for C++ and Java
- Maintained code for emergency-response dispatch software used throughout Suffolk and Nassau county
- Gained professional experience with Git

**The Paramount** – *Stage Manager*　　　　　　　　　　　　　*May 2015 – May 2019*
- Stage-managed over 100 acts in a 1,500 seat entertainment venue
- Worked with artists such as The Beach Boys, Fergie, Joe Jonas, Meatloaf, Weird Al, and Train

**The Town Pants** – *Musician* (*Upright Bass & Piano*)　　　　　　*May 2014 – May 2017*
- Toured in an internationally established Irish folk band
- Performed in places such as Dublin, Edinburgh, London, New York City, Hawaii, Quebec, and Vancouver
- Played with musicians such as Zac Brown, Cory Henry, and George Millar

## Projects

**Multi-Threaded Transactional Object Store Database** – *C*　　　*Nov 2018 – Dec 2018*
- Use of POSIX threads and multi-threading safety
- Attained concurrency guarantees with use of semaphores, mutexes, and proper thread execution
- Handled host-to-many-client connection with low-level socket programming

**Vendor** – *Java, JDBC, and MySQL*　　　　　　　　　　　　*Nov 2018 – Dec 2018*
- Created a full-stack web app for an online auction house
- Fully functioning website similar to *eBay* where users can buy or sell items

**RUDP** – *Python*　　　　　　　　　　　　　　　　　　　*September 2018 – October 2018*
- Wrote a reliable user datagram protocol implementation
- Heavy use of the Python socket library
- Features 2-way file sharing and simulated packet loss

**Segregated Freelist Memory Manager** – *C*　　　　　　　　　*Nov 2018 – Dec 2018*
- Dynamic memory allocator for the x86-64 architecture
- Emulates C standard library functions `malloc`, `realloc`, and `free`
- Features best-fit placement policy and immediate coalescing on `free` with adjacent free blocks.

**SBUScript** – *PLY* (*Python, Lex, Yacc*)　　　　　　　　　　*June 2018 – July 2018*
- Built a complete compiler for Java
- Extensive use of the PLY parser generator

## Skills

**Languages:** Python, MySQL, Java, Javascript(React), C/C++, Bash, CSS, HTML, Prolog, SML, LaTeX, LISP, MIPS
**Tools:** Git, Tableau, SQL Server Management Studio, Jupyter, AWS, Pro Tools, Ableton, Photoshop, Blender, VMware
**Natural languages:** English (*native speaker*), Swedish (*limited working proficiency*), Norwegian (*limited working proficiency*)