

CONTACT INFORMATION	Björn Jensen-Urstad Skeppargatan 96 115 30 Stockholm Sweden	Mobile: +46-70-0222948 E-mail: bjornju@fastmail.com Github: https://github.com/b3rnie/
QUALIFICATIONS AND INTERESTS	Distributed systems, Scala/Java, Erlang/OTP, embedded systems, low power embedded, databases, protocols, functional programming, network protocols, eventual consistency, software architecture, message queues, etc.	
AVAILABILITY	• Geographic location is flexible, but there is preference for Stockholm, Sweden	
EDUCATION	Royal Institute of Technology , Stockholm, Sweden B.S., Computer Science, 2006-2010, specializing in software development MS.S., Computer Science, 2002-2004, four semesters out of 9 Hersby gymnasium , Lidingö, Sweden Upper secondary school, 1997-2000	
PROFESSIONAL EXPERIENCE	Campanja , Stockholm <u>Data Engineer</u> April 2019- <ul style="list-style-type: none">• Worked as a mixture of a data-scientist and an engineer. Did research, experiments, notebooks and built products out of our findings. Most development was done using Python, Docker and Kubernetes. GpsGate , Stockholm <u>Engineer</u> January 2017- <ul style="list-style-type: none">• Built a metrics pipeline to collect customer server statistics. Data gets aggregated continuously and inserted into a time series database for real time dashboards. Reported data is also stored in S3 for batch querying. Implemented on AWS using S3, SQS, Athena, Prometheus, Grafana and NodeJS.• Worked on scaling a .NET system and making it possible to run parts of it on a cluster if needed. Using Scala, Netty, Apache Kafka, Cassandra and Docker.• Implemented a subscription based license model/billing system where servers report usage and are charged based on that. Resulted in a more predictable revenue stream for us since customers pay monthly instead of yearly. For customers it resulted in far lower startup costs. Implemented on AWS using MySQL (Aurora), Docker and NodeJS. TrueAccord , Stockholm, Sweden/San Francisco, US Remote work from Stockholm with periodic visits to San Francisco <u>Engineer</u> September 2014 to November 2016 <ul style="list-style-type: none">• Worked on the core infrastructure, major contributions include: developing a scheduling service to contact debtors at the optimum time, a rule system to systematically deal with the compliance and regulations in debt collection, automatic dispute handling, components to throttle and regulate (PID) rate of requests to external services. Most development was done using Scala.• Numerous integrations and business features. Self employed , Stockholm, Sweden <u>Consulting</u> August 2013- <ul style="list-style-type: none">• Designed, implemented and maintained a batch processing system using Zookeeper, Riak and Erlang/OTP. The system was built to scale and be able to handle terabytes of data each day.	

Kivra AB, Stockholm, SwedenEngineer**March 2013 to September 2013**

- Architecture, development and maintenance of the services that made up Kivra's system.

Klarna AB, Stockholm, SwedenEngineer**March 2010 to January 2013**

- Extended an existing transactional database (Mnesia) with features to allow parts of the data to be shared (read/written) in an eventual consistent manner. This involved writing a framework to allow easy transformation of keys/values between two very different databases with different availability requirements, adding vector clocks to an existing database schema and mechanisms to transport/sync data over RabbitMQ. The databases are the core of a business with a monthly revenue of 200 million USD
- Design and implementation of the alpha version of Klarna's checkout
- Experiments with automatic fraud detection
- Rewrote and replaced Klarna's old fraud checking system with a DSL accessible through a web GUI. This gave staff more freedom to express what they want and the possibility to change rules without involving developers
- Lots of minor features for the business such as integrating with new credit check agencies.

Posten AB, Stockholm, SwedenMailman**2001 to 2002 and 2004 to 2005**

MEMBERSHIPS

Housing Cooperative, Bjornligan**2007-2010**

- Board of directors and responsible for the economy

EFF (Electronic Frontier Foundation)**2010-**

OPENSOURCE

Written several open-source projects (see github), including:

- Crontab implementation in Erlang
- Clone of Apache Kafka in Scala
- Unique id generator in Erlang
- Various components for integrating with Apache ZooKeeper
- NNTP fetcher/assembler in Perl
- Socks 4/5 proxy in C++ (single thread using nonblocking IO)

SKILLS

Software development:

- Worked with Scrum, Kanban, Git, Subversion, test driven development, property based testing

Computer Programming:

- Good knowledge of Scala, Java, Erlang/OTP, functional programming, Ruby
- Experience with JavaScript, C, C++, Perl, Python

Information/Internet Technology:

- Written my own TCP/IP stack running on a 8 bit microcontroller. From transport layer up to application layer (Ethernet, ARP, IP, ICMP, TCP, UDP). Implemented a simple web-server and bittorrent tracker on top of it
- Written servers and or clients for Bitcoin, FTP, HTTP 1.0/1.1, SMTP, DNS, POP3, Jxta, NNTP, Irc, BitTorrent and Socks 4/5 as well as other less known protocols.
- Done web development in PHP, Ruby on Rails, NodeJS, AngularJS, Perl, CGI

Operating Systems/Software:

- GNU/Linux user since 1996, experience with OpenBSD and Solaris
- Experience with Apache, nginx, Cassandra, MySql, PostgreSQL, Bind, Riak, Rails, Spring, JPA, Hibernate, RabbitMQ, ZooKeeper, HAProxy etc

Hardware/Embedded systems:

- Experience with PCB design and creation in CadSoft Eagle (2-sided), digital electronics, low power embedded systems, Microchip PIC 8 bit family

EXTRA- CURRICULARMy current passion is rock-climbing, in particular bouldering and sport-climbing.

ACTIVITIES Diving has also been a big interest in my life for the last 7 years and I enjoy all parts of it, from advanced cave-diving and deep-diving to educating new divers.

OTHER I speak/write Swedish fluently and have some German skills. I have a drivers licence.