

# Alexander Cook

Cell: 952.797.6723; E-mail: ACook@umn.edu

## SUMMARY

### Software Engineer

*Streaming Analytics Application Design and Development, Developer Ecosystem Creation*

- **Innovative software engineer** offering 2 years of experience in IBM InfoSphere Streams streaming application development, high-availability, and data resiliency.
- **Effective communicator** known for teaching technical content through articles and videos, coordinating cross-team projects, recruiting, and recognizing high-value priorities.
- **Creative inventor** with 17 patent filings and several publications in streaming platform design, distributed data processing, and analytics solutions.

## EDUCATION

### Bachelor of Computer Science, May 2014

University of Minnesota-Twin Cities, College of Science and Engineering, Minneapolis, MN

**GPA:** 3.96/4.00 **Honors:** *High Distinction, Summa Cum Laude* **Emphasis:** *Artificial Intelligence*

## SKILLS

**Programming Languages:** Java, Streams Processing Language (SPL), Perl, C/C++, SQL

**Tools:** Apache Kafka, Apache Solr, RabbitMQ, Eclipse

**Foreign Languages:** Fluent in Greek, strong proficiency in French

## WORK

### Staff Software Engineer, IBM, Rochester, MN

April 2015-Present

Design and develop InfoSphere Streams operators for streaming data processing applications. Manage Streams ecosystem development as part of a 2-engineer team through articles, videos, samples, tutorials, and open source documentation. **Achievement Highlights:**

- Designed and implemented cloud-ready RabbitMQ Source/Sink Streams SPL operators for the open source Streams Messaging Toolkit using the RabbitMQ Java client API.
- Provided expertise and led solution for Streams application integration with Kafka-based Message Hub cloud service on Bluemix.
- Supported large-scale customer engagements as the Streams team Kafka expert.
- Developed and published 21 blog posts, articles, and tutorials, created and produced 6 sets of educational videos, and curated article publications on developer.ibm.com/streamsdev.
- Recognized as an **IBM Master Inventor** for significant contribution to IBM intellectual property.

### Software Quality Engineer, IBM, Rochester, MN

June 2014-March 2015

Developed automated tests and executed manual verification tests for the InfoSphere Streams platform, specializing in high availability, resiliency, and setup. **Achievement Highlights:**

- Designed and developed automated perl test suite for new platform high availability.
- Created Streams Processing Language (SPL) applications for testing purposes.
- Managed and setup System Verification Test (SVT) environments (Streams installation, high availability configuration, and runtime monitoring) for Streams 4.0 and 4.0.1 releases.
- Collaborated with platform development team to identify, resolve, and debug system faults.

## INTERNSHIPS

### Software Engineer, Medtronic, Mounds View, MN

May-Aug 2013

- Developed dynamic reports that track metrics of 200,000+ patient monitors using SQL Server.

### Project Lead, Boston Scientific, Maple Grove, MN

May-Aug 2012

- Managed 5-8 technical equipment engineering projects (2-4 engineers per project).

## RESEARCH

### Machine Learning Research

Sep 2013-May 2014

Professor Arindam Banerjee – University of Minnesota, Twin Cities, MN

- Honors thesis on stock portfolio selection using Online Learning.

## STUDY ABROAD

### Hong Kong University of Science and Technology

Sep-Dec 2012