

Leon Oliver Stenneth

Experience	8/31/2008 – present	University of Illinois	Chicago, IL
	Research Assistant		
	1. <i>Next Generation Data Mining and Social Computing (NGDS) lab</i> Supervised by Prof. Philip Yu Area: Context mining, social networks analysis, and privacy preservation.		
	2. <i>Databases and mobile computing lab</i> Supervised by Prof. Ouri Wolfson Area: Mobile computing, Spatial and temporal databases, and ITS		
	3. <i>BITS lab</i> Supervised by Prof. Jakob Eriksson Area: Sensor networks, GIS, Mobile handheld devices, and transportation systems.		
	01/01/2012- 01/01/2013	Nokia Location and Commerce	Chicago, IL
	Research Scientist		
	Monitoring and Data mining from raw GPS traces obtained from automatic vehicle locators and smartphones. We developed and patented new classification strategies that derive complete transit systems from raw GPS traces. Travel speed, travel time, and arrival time estimation. Tools used: Machine learning (unsupervised learning, supervised learning, and semi-supervised learning), Kalman Filter, map matching, REST, and PostgreSQL with POSTGIS spatial.		
	05/31/2011-09/30/2011	Computerized Facilities Integration	Chicago, IL
	Software Architect Intern		
	Developed customized modules according to customer requirements for Java based Archibus Enterprise Solution (http://www.archibus.com/) Using Agile development with scrum methodology. Tools used: Java, Oracle database, scripting.		
	09/01/2011-01/31/2012	NAVTEQ	Chicago, IL
	Software/Research Consultant		
	Automatic software testing of map objects. Given new maps (e.g. Nokia, Bing or Google maps), I developed innovative strategies to automatically verify if mapping operations such as panning and zooming are supported. Tools used – Robot, Selenium IDE, Selenium RC, Web Driver, Java, JUNIT, Maps (Nokia, Bing, OpenLayers), Tomcat, SmartGWT.		
	06/01/2010-05/12/2011	Research In Motion (BlackBerry)	Rolling Meadows, IL
	Software Developer (Intern)		
	Chief architect and developer for the DunnsRiver Intelligent Patent Management System. This system simplifies the search process for patents and also maintains a patent recommender system. Techniques used – Text mining, JEE tools, Hibernate Core/Search, Web Services (Axis-SOAP), Wiki, Apache Tomcat, Drools, Maven, PostgreSQL, Oracle, Bugzilla, Carrot 2.		

08/21/2009 – 12/31/2010 BYTELAW Golf Road, IL
Software Consultant (contract)
Developed a Patent extraction and search enterprise system. Using Java technology

10/01/2004–05/31/2008 University of Technology Jamaica Kingston, Jamaica
Lecturer, Faculty of Engineering & Computing

08/31/2006–205/31/2008 Bank of Jamaica Kingston, Jamaica
Software Consultant
Consultancy on their Java based Financial System.

Education 08/31/2008 – current University of Illinois (Chicago) Chicago, IL
Ph.D. in Computer Science – Current GPA = 3.76/4.00
Thesis – Detecting human activities using smartphones and maps.
Advisors: Professor Philip Yu and Professor Ouri Wolfson

2003–2004 University of Westminster London, UK
Master of Science (M.Sc.) – Distinction, GPA = 4.00
Double Specialization: Applied Programming and Computer Networks

08/31/1999–05/31/2003 University of Technology Jamaica Kingston, Jamaica
Bachelor of Science in Computer Science (B.Sc.) – Distinction, GPA = 3.77/4.00

Technical Skills

Java Standard Edition (JSE), Java Enterprise Edition (JSP,JSF, Java Beans, Servlets, JDBC), XML, JSON, Hibernate Core/Search, AXIS(SOAP) ,SEAM, C++, C, C#, J2ME, DROOLS, MAVEN, Databases (MS SQL, MYSQL, PostgreSQL, Oracle) VB, desktop website design, mobile web development, Bugzilla, Wiki Programming, AJAX, SJAX, JSON, Mobile handheld development, Application Servers (Apache Tomcat, JBoss, Jetty) ,Maps API (Google, Bing, ESRI), Geo-location Apps, GIS applications, Map matching, Network Programming, Team Foundation Server, Context Aware Applications, Automated Software testing (Selenium, Robot, JUNIT), Agile and Scrum development. Machine learning (Classification, Clustering, Feature Selection), Dempsey, Hadoop.

Popular Project

TransitGenie – Worked on an innovative mobile web and iPhone context aware transit itinerary planner application for the city of Chicago. <http://www.transitgenie.com/>. Over 60,000 iPhone users currently use this application.

Selected awards

Richard Tapia Diversity Fellowship, 2011
Chevron International Student Scholarship, 2011
Fulbright Scholarship for PhD, 2008
European Union Scholarship for MSc, 2004
University of Technology Foundation Scholarship for 4 years of BSc, 1999-2003

Selected publications

1. Real time street parking availability estimation. *13th IEEE MDM 2013 (under review)*
Leon Stenneth, Ouri Wolfson, Philip Yu, Bo Xu, Jie Yang
2. BATE: Bus arrival time estimation in a timetable environment. *13th IEEE MDM 2013 (under review)*

review)

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3. Activity recognition from smartphone sensor traces and geospatial knowledge. *Springer Distributed and Parallel Databases 2013* (under review)
Leon Stenneth, Ouri Wolfson, Philip Yu, Bo Xu
4. Monitoring and Mining GPS traces in transit space. SIAM SDM 2013
Leon Stenneth, Philip Yu
5. An Empirical study of Data Race Detector tools. International conference on soft computing 2013
Jalal Alowibdi, Ugo Buy, **Leon Stenneth**
6. Transportation transfers from GPS traces. 15th IEEE ITSC 2012
Leon Stenneth, Kenville Thompson, Waldin Stone, Jalal Alowibdi
7. PhonePark: Street parking using mobile phones. 12th IEEE MDM 2012
Leon Stenneth, Ouri Wolfson, Bo Xu, Philip Yu
8. Detecting human activities from smartphones and maps. SIAM SDM 2012 (Poster)
Leon Stenneth, Philip Yu, Ouri Wolfson, Bo Xu
9. Transportation mode detection using mobile devices and GIS. 19th ACM SIGSPATIAL GIS 2011
Leon Stenneth, Ouri Wolfson, Philip Yu, Bo Xu
10. Privacy-Aware Mobile Location Based Systems. 13th ACM UBICOMP 2011 (MLBS)
Leon Stenneth, Philip Yu
11. Reducing travel time by Incident reporting via crowdsourcing. 12th ICOMP 2011
Leon Stenneth, Waldin Stone, Jalal Alowibdi
12. Mobile Systems location privacy. "MobiPriv" A robust K-anonymous system for snapshot and continuous queries. Transactions on Data Privacy volume 5, issue 1.
Leon Stenneth, Philip Yu
13. Mobile Systems Location Privacy: "MobiPriv" A Robust K Anonymous System. 6th IEEE WiMob 2010
Leon Stenneth, Philip Yu, Ouri Wolfson
14. Global privacy and transportation mode homogeneity anonymization in location based mobile systems with continuous queries. 6th IEEE ColoborateCom 2010
Leon Stenneth, Philip Yu
15. An Application of Intelligent Adaptive Agents Over Wireless Networks. International Conference on Information and Communications Technology Research, 2009
Leon Stenneth, Waldin Stone
16. A Peer Based Model for 2D Multiplayer Gaming. 4th International Conference on Internet Technologies and Applications ITA 2005
Leon Stenneth, Richard Pyne

Patents pending

1. Building entrance classification from pedestrian probe data, 2013
Inventors: Leo Modica, Leon Stenneth
2. Systems and methods for activity classification, 2012 - [US serial# 61/720,815]

Inventors: Leon Stenneth, Ouri Wolfson, Philip Yu, and Bo Xu

3. Methods and apparatus for transit mapping, 2012 - [NC79749US]

Inventors: Leo Modica, Leon Stenneth

4. Methods and apparatus for deriving spatial properties of bus stops and traffic controls, 2012 - [NC79747US]

Inventors: Leo Modica, Leon Stenneth,

5. Real-time vehicle spacing control, 2012 - [NC80204US]

Inventors: Leo Modica, Leon Stenneth,

6. Deviation detection in mobile transit systems, 2012 - [NC80206US]

Inventors: Leo Modica, Leon Stenneth

7. Methods and apparatus for transit mapping, 2012 – [NC79746US]

Inventors: Leo Modica, Leon Stenneth

**Conferences
Reviewed**

- IEEE MDM 2012
- ACM SIGSPATIAL GIS 2012
- ACM RACS 2012
- Applied Computing 2012
- VLDB 2012
- ACM UBICOMP 2012
- SMART 2012
- 30th IEEE Symposium on Reliable Distributed Systems (SRDS 2011)
- CIKM 2011
- IEEE MDM 2009, 2010, 2011
- ACM SIGSPATIAL GIS 2009, 2010, 2011
- COLLOBORATE COM 2010, 2011
- 12th Symposium on spatial and temporal databases 2011
- Wireless Applications and Computing (WAC) 2011
- 9th IEEE Consumer Communications and Networking Conference - Emerging Consumer Technologies
- Applied Computing 2011
- 10th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks 2009
- 2 Chapters in the Handbook of Peer-to-Peer Networking