Michael Nekrasov

https://michaelnekrasov.com

mikrasov@gmail.com
(858) 754-9676

EDUCATION

Ph.D. Computer Science 2020
University of California, Santa Barbara

M.S. Computer Science 2018
University of California, Santa Barbara

B.S. Computer Science 2011
University of California, San Diego (cum laude)
Minor in Mathematics

WORK EXPERIENCE

Institutional Shareholder Services, San Diego
Front-End Web Engineer 2020 - Present

UC Santa Barbara
Research Assistant - MOMENT lab 2014 - 2020
 ◇ **Flying Ubiquitous Sensor Networks**: Optimizing UAS 802.15.4 for data delivery for wireless sensor networks.

 ◇ **Cellular Congestion Monitoring**: SDR to detect network congestion via LTE broadcast messages.

 ◇ **Tribal Internet Access**: Automated aerial network assessment to rapidly plan new network deployments.

 ◇ **Voxel Based Aproximation**: Novel algorithm for locating devices from Unmanned Aircraft Systems.

 ◇ **Verifiable Group Anonymity**: Android application using cryptography and proxy to anonymize social media accounts while protecting group identity and message integrity.

Walailak University - Center of Excellence in Ecoinformatics, Thailand
Fulbright Research Scholar 2013
 ◇ **Early Warning Flood Detection** : Real-time event detection of flooding in Bandon Bay, Thailand.

UC San Diego
Research Assistant - California Institute for Telecommunications and Information Technology 2009 - 2012
 ◇ **Coral Sensor Networks**: Middleware for coral reef observatories streaming and sharing data.

 ◇ **Bee Counting**: Computer vision for automatic counting of bee population changes.

 ◇ **Coral Spawning**: Automated coral spawning detection using computer vision coupled with coral fluorescence.

Front-End Web Developer - International Center 2008 - 2010

MobileTrac, San Diego
Front-End Web Developer 2009 - 2012

HONORS & AWARDS

College of Engineering Outstanding TA Award	2020	UCSB Doctoral Scholars Fellowship	2012
ACM DroNet Best Paper	2019	UCSD Graduated Cum Laude	2011
Dissertation Year Fellowship	2018	UCSD Returnee of the Year	2010
MobiSys Best Poster	2013	UCSD Robins Scholarship	2010
Fulbright Research Scholar	2012	Boeing Scholarship	2008
NSF Graduate Research Fellowship	2012	BAE Systems Scholarship	2009

SKILLS

Programming:	Python; Java; JavaScript; C; Assembly Languages (SPARC)
Web:	HTML 5; CSS 3; NodeJS; React; Gatsby; JQuery; XML; SQL; JSON; AJAX; Twitter Bootstrap; API Development; REST; Apache Servers
Technologies:	Pandas; NumPy; SciPy; Android Development; Django; TCP/IP Stack; 802.11; 802.15.4; Cloud Computing (AWS); OpenCV;
Tools:	Linux/Windows; PyCharm; IntelliJ; Eclipse; Adobe Photoshop/Lightroom; LaTeX; Microsoft Office; UAS Pilot (Part 107); DataTurbine
Social:	Teaching; Teamwork; Communicating between disciplines; Multi-national collaborations; Engage with technology stakeholders; Grant writing
Other:	US Citizen; Fieldwork; Sensor Network Deployment; Photography; PADI Scuba Certified; International Travel (40+ Countries); Fluent in Russian;

FORMAL TRAINING

Graduate:	Computational Geometry; Distributed Computing; Computer Networks; Mobile Computing; Cloud Computing; Mobile Networks; Mobile Imaging; Data Intensive Computing; Java Distributed Computing; Sociology & Biology Networks; Education: Blended Learning Course Design
Undergraduate:	Artificial Intelligence; Programming Languages; Assembly; Compilers; Computer Design; Computer Architecture; Operating Systems; Computer Security; Computer Communication and Networks; Basic Data Structures & Object Oriented Design; Advanced Data Structures; Software Engineering; Cognitive Science; Computability & Intractability; Mathematical Reasoning; Advanced Calculus; Advanced Linear Algebra; Graph Theory; Statistics; Combinatorics; Number Theory; Physics (Electromagnetic, Optics, Mechanical, Thermodynamics); Analog Design; Circuits and Systems

PUBLICATIONS

Real-Time Multilateral RSSI Localization from UASs for Disaster Response 2020
Nekrasov M, Belding E.
(In preparation)

Peeking through Cellular Walled Gardens to Estimate Congestion 2020
Adarsh, V., Nekrasov, M., Belding, E.
(In preparation)

The Past 110 Years: Historical Data on the Underrepresentation of Women in Philosophy Journals 2020
Hassoun, N., Conklin, S., Nekrasov, M., West, J.
The Journal of Ethics. (Under Submission)

Impact of 802.15.4 Radio Antenna Orientation on UAS Aerial Data Collection 2020
Nekrasov, M., Maxton, G., Allen, R., Artamonova, I., Belding, E.
Proceedings of the 29th International Conference on Computer, Communication and Networks (ICCCN). 2020.

#Outage: Detecting Power and Communication Outages from Social Networks 2020
Paul, U., Alexander, E., Nekrasov, M., Adrash, V., Belding, E.
Proceedings of the Web Conference (WWW).

Evaluating LTE Coverage and Quality from an Unmanned Aircraft System 2019
Nekrasov M, Adarsh V, Paul U, Showalter E, Zegura E, Vigil-Hayes M, Belding E.
Proceedings of the 16th IEEE International Conference on Mobile Ad-Hoc and Smart Systems (MASS).

Packet-level Congestion Estimation in LTE Networks using Passive Measurements 2019
Adarsh, V., Nekrasov, M., Belding, E.
Proceedings of the Internet Measurement Conference (IMC), pp. 158-164.

Optimizing 802.15. 4 Outdoor IoT Sensor Networks for Aerial Data Collection 2019
Nekrasov, M., Allen, R., Artamonova, I., Belding, E.
MDPI Journal of Sensors, 19(16), p. 3479.

Performance Analysis of Aerial Data Collection from Outdoor IoT Sensor Networks using 2.4GHz 802.15.4 2019
Nekrasov, M., Allen, R., Belding, E.
Proceedings of the 5th Workshop on Micro Aerial Vehicle Networks, Systems, and Applications (DroNet), pp. 33-38.

A User-driven Free Speech Application for Anonymous and Verified Online, Public Group Discourse. 2018
Nekrasov, M., Iland, D., Metzger, M., Parks, L. Belding, E.
Journal of Internet Services and Applications, 9(1).

SecurePost: Verified Group-Anonymity on Social Media 2017
Nekrasov, M., Iland, D., Metzger, M., Zhao, B. Belding, E.
7th USENIX Workshop on Free and Open Communications on the Internet (FOCI).

Limits to Internet Freedoms: Being Heard in an Increasingly Authoritarian World 2017
Nekrasov, M., Parks, L., Belding, E.
Proceedings of the 2017 Workshop on Computing Within Limits (Limits), pp. 119-128.

Sensor Networks Applications for Reefs at Racha Island, Thailand. 2012
Jaroensutasinee, M., Jaroensutasinee, K., Bainbridge, S., Fountain, T., Chumkiew, S., Noonsang, P. Kuhapon, U. Vannarat, S. Poyai, S. Nekrasov, M.
Proceeding of the 12th International Coral Reef Symposium (ICRS), Cairns, Australia, p. 95.

CREON – Integrating Disparate Sources of Remote Coral Reef Sensor Data 2012
Jaroensutasinee, K., Jaroensutasinee, M., Bainbridge, S., Fountain, T., Holbrook, S., Nekrasov, M.
Proceedings of the 12th International Coral Reef Symposium (ICRS), Cairns, Australia, pp. 9-13.

The Open Source DataTurbine Initiative: Empowering the Scientific Community with Streaming Data Middleware. 2012
Fountain, T., Sameer, T., Shin, P., Nekrasov, M.
Bulletin of the Ecological Society of America. 93(3), pp. 242-252.

Coral Sensor Network at Racha Island, Thailand. 2011
Fountain, T., Nekrasov, M., Jaroensutasinee, M., Jaroensutasinee, K., Chumkiew, S., Noonsang, P., Kuhapong, U. Bainbridge, S.
Proceedings of the Environmental Information Management Conference (EIM).

Automatic Analysis of Camera Image Data: An Example of Honey Bee (Apis cerana) Images from the Shanping Wireless Sensor Network. 2011
Lu, S. S., Perry, M., Nekrasov, M. Fountain, T., Arzberger, P., Wang, Y. H., Lin, C. C.
Taiwan Journal of Forest Science, 26(3), pp.305-311.

PROFESSIONAL ACTIVITIES

Technical Program Committees
◇ First Annual Android SensorPod Workshop, *TFRI Headquarters, Taipei, Taiwan*   2013

Invited Talks
◇ Remote Lecture: ICT4D, *Brown University - Dep. Modern Culture and Media*   2016
◇ Lecture: Applications of Mathematics and Computer Science, *Torrey Pines High School*   2016
◇ Lecture: Quantitative Methods in Social Sciences, *UC Santa Barbara*   2014
◇ TV Interview, *Local news for Nakhon Si Thammarat, Thailand*   2013
◇ Sensor Tools Workshop, *LTER Information Management Headquarters, Albuquerque, New Mexico*   2012
◇ Experimental Learning Conference, *UC San Diego*   2012
◇ SensorNIS Workshop, *Hubbard Brook Experimental Forest, New Hampshire*   2011

Service
◇ Judging SB Hacks (competition), *UC Santa Barbara*   2020
◇ Graduate Student Recruitment Committee, *UC Santa Barbara*   2016
◇ Student Senate, *UC Santa Barbara*   2015-2016

TEACHING EXPERIENCE

Instructor of Record
UC Santa Barbara - School for Scientific Thought
◇ Computer Ethics: Reshaping Society Through Technology   Winter 2003

Teaching Assistant
UC Santa Barbara
◇ Introduction to Computer Communication Networks   Fall 2019
◇ Translation of Programming Languages   Spring 2018
◇ Computer Science Bootcamp   Winter 2018
◇ Foundations of Computer Science   Fall 2012