

**WORK EXPERIENCE**

---

**University of Southern California****Research and Teaching assistant** Los Angeles, CA **Fall 2012 – Present*****DATASEM and DES frameworks (Spring 2013 – present, ongoing research project, 20+KSLOC)***

- Designed and managed development of agent based and discrete event simulation frameworks for modeling of software development processes (Agile, Scrum, Integrated Master Schedule, Kanban-based work scheduling, etc.). Frameworks compare effectiveness (effort, schedule, bottle-necks, governance overhead) of development processes and scheduling strategies for different organizational environments.
- Technologies used: Java (backend), Play (MVC framework), Repast Symphony simulation engine.

---

**MSS-Holding****Software Engineer** Novosibirsk, Russia **Spring 2009 – Summer 2012*****Systems for city's energy efficiency monitoring and control (1000+KSLOC project)***

- Designed and developed a database for master data management (Oracle 10g).
- Designed and implemented a document workflow subsystem for integration with external systems (JBoss, Java EE, Web Services, REST).
- Managed and led a team of 5 software developers (project's chief engineer) – Spring 2011-Summer 2012.

***System for operative monitoring of technological infrastructure for oil and gas fields (100+KSLOC project)***

- Designed algorithms for energy demand prediction based on consumption of power in transportation hubs.
- Designed and developed Java backend for DAL subsystem (Java) replacing Hibernate with custom ORM for performance improvement.

**EDUCATION**

---

**Los Angeles, CA** **University of Southern California** **Fall 2012 – Present**

- Ph.D. in Computer Science, Software Engineering, Fall 2012 – present (graduation Fall 2017). GPA: 4.0/4.0
- Research field: Quantitative methods of SW project effort and schedule estimation (adviser Dr. B.Boehm).
- Tools created: DES framework, DATASEM (Java Play framework applications, Repast simulation engine)
- Graduate Coursework: Advanced Analysis of Algorithms, Advanced Computer Communications, Foundations of Artificial Intelligence.

**Novosibirsk, Russia** **Novosibirsk State University** **Fall 2005 – Summer 2011**

- M.S. in Computer Science, June 2011. GPA: 4.96/5.0
- B.S. in Computer Science, June 2009. GPA: 4.96/5.0
- Graduate Coursework: Software Architecture; Distributed Computing; Logic Programming.
- Undergraduate Coursework: Software Architecture; Algorithms; Operating Systems; Databases; OOA&D.

**TECHNICAL SKILLS**

---

**LANGUAGES AND TECHNOLOGIES**

- Java (expert), C, Python, R, UML, SQL
- Spring MVC, Play MVC (REST), Sparkler Crawler, Oracle DBMS, Eclipse (proficient)
- Web Technologies: JavaScript, Angular, Node.js, D3.js, AJAX, Bootstrap, HTML, CSS
- Cloud Development: Red Hat OpenShift, Heroku, GitHub

**ADDITIONAL EXPERIENCE, AWARDS**

---

**LEADERSHIP EXPERIENCE**

- Full time project chief engineer (team leader) Spring 2011-Summer 2012
- Teaching assistant in graduate software engineering class (Fall 2014-present USC CSCI 577ab - <http://greenbay.usc.edu/csci577/fall2016> - taught a series of OOA&D and Software Architecture lectures).
- Lectured a software engineering class with over 80 students. Mentored 5 students in directed research class.

**AWARDS**

- Deans Masters Fellowship, 2012
- Best paper award, XLIX International Science Conference «Progress in Science and Technology», 2011

**PUBLICATIONS**

---

1. Tregubov A., Boehm B., Rodchenko N., Lane, J.A.; «Impact of Task Switching and Work Interruptions on Software Development Processes» In Proceedings of International Conference on Software and Systems Process (ICSSP'17), Paris, France, 5-7 July, 2017.
2. Tregubov A., Lane, J.A., Boehm B.; «Evaluation of cross-project multitasking in software projects» Conference on Systems Engineering Research (CSER'17), Los Angeles, CA, 23-25 March, 2017.
3. Tregubov A., Lane, J.A.; «What does it mean to be Lean in SoSE environment?» 26th Annual INCOSE International Symposium (IS'16) Edinburgh, Scotland, UK, July 18-21, 2016.
4. Tregubov A., Lane, J.A.; «Simulation of Kanban-based scheduling for systems of systems: initial results» Conference on Systems Engineering Research (CSER'15), Hoboken, NJ, 17-19 March, 2015.
5. Tregubov A., Kovalyov S. «Outstanding characteristics of large scale systems of energy efficiency monitoring and control design» NSU Bulletin, 10(3), 80-91, Novosibirsk, Russia, 2012
6. Hira A., Tregubov A., Alsarra S., Sharma S., Boehm B. «Comparing JIRA and Bugzilla for Software Project Tracking and Data Collection» In Proceedings of 28th Annual IEEE Software Technology Conference (IEEE STC'17), Gaithersburg, MD, 25-28 September, 2017.
7. Turner R., Yilmaz L., Tregubov A.; «DATASEM: A simulation suite for SoSE management research» IEEE 11th International Conference on System of Systems Engineering (SoSE'16), 12th-16 June, 2016.
8. Turner R., Yilmaz L., Tregubov A.; «Modeling an Organizational View of the SoS Towards Managing its Evolution» IEEE 10th International Conference on System of Systems Engineering (SoSE'15), 17-20 May, 2015.