

# Violetta Vylegzhanina

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- EDUCATION    ♦ **M.Sc., Vanderbilt University**, Computer Science Dept., USA. *Dec'15*  
GPA: 4.0/4.0.
- ♦ **B.S., Vanderbilt University**, Computer Science Dept., USA. *May'13*  
GPA: 3.7/4.0.
- WORK        ♦ **ZH Solutions/HITactics, Inc.**, *Software Engineer*. *Sep'15-present*  
EXPERIENCE    · Provide high quality software services for indoor positioning and asset tracking solutions that rely on heterogeneous components, such as IoT.
- Design and develop a customizable and scalable event-driven system that processes realtime data streams (e.g. Amazon Kinesis) for purposes such as monitoring, analytics, and notifications.
  - Design and develop a set of secure Portal REST APIs that simplify retrieving and modifying server data.
- Provide software solutions for the health care, life sciences, and retail industries.
- Assist in frontend and backend updates to an existing complex codebase of a client's admin web portal.
  - Built a backend and an ETL support for the handheld device application that allows for medical asset tracking and medical procedure cost analysis.
- ♦ **Emdeon**, *IT and Information Security Intern*. *May'15-Aug'15*
- Saved several months of manual work by developing a tool that instantly documented 4,000 of attack characteristics.
  - Lead the project to prevent the company's websites against online phishing attacks.
  - Performed dynamic assessments of client-facing applications and provided remediation strategies for detected vulnerabilities.
- ♦ **Institute for Software Integrated Systems**, *Research Assistant*. *May'13-May'15*
- Conducted research on system security and improvement of Java applications' effectiveness through remediation of security flaws.
  - Detected security flaws using machine learning WEKA library<sup>1</sup>.
  - Optimized method tracing by intercepting specific method calls at run-time to reduce noisy data.
  - Developed an Android app that deals with often changing unstructured data to ease the shopping experience of WIC (Women, Infants, and Children).
  - Improved integration among mobile health solutions using *Open-mHealth*<sup>2</sup> and MongoDB database on Amazon EC2 that stores purchase data.
  - Developed data analytics solutions for shopping choices data stored in SQLite database to provide healthy tips that are customized for each user.
- ♦ **Schneider Electric**, *Engineering Intern*. *Dec'11-Apr'13*
- Lead the reconstruction of test environment with automated test units in .NET.
  - Integrated unit tests with the software development cycle.

<sup>1</sup><http://www.cs.waikato.ac.nz/ml/weka/>

<sup>2</sup><http://www.openmhealth.org/>

## PUBLICATIONS

V. Vylegzhanina, D. C. Schmidt, and J. White. **Gaps and Future Directions in Mobile Security Research.** In *Proceedings of the 3rd International Workshop on Mobile Development Lifecycle*, MobileDeLi 2015, pages 49–50, New York, NY, USA, 2015. ACM. ISBN 978-1-4503-3906-3. doi: [10.1145/2846661.2846669](https://doi.org/10.1145/2846661.2846669)

V. Vylegzhanina, D. C. Schmidt, P. Hull, J. S. Emerson, M. E. Quirk, and S. Mulvaney. **Helping Children Eat Well via Mobile Software Technologies.** In *Proceedings of the 2Nd International Workshop on Mobile Development Lifecycle*, MobileDeLi '14, pages 9–16, New York, NY, USA, 2014. ACM. ISBN 978-1-4503-2190-7. doi: [10.1145/2688412.2688413](https://doi.org/10.1145/2688412.2688413)

V. Vylegzhanina, D. Brett, and A. Gokhale. **Design Considerations in Developing a Mobile Application for Scalable and Decentralized Publish/Subscribe-based Weather Alert System.** In *Proceedings of the 2013 ACM Workshop on Mobile Development Lifecycle*, MobileDeLi '13, pages 21–26, New York, NY, USA, 2013. ACM. ISBN 978-1-4503-2603-2. doi: [10.1145/2542128.2542135](https://doi.org/10.1145/2542128.2542135)

## SKILLS

- ◇ Languages: Java (expert), C# (proficient), C++ (prior experience), JavaScript (prior experience), Python (prior experience).
- ◇ Frameworks: Spring, Retrofit, Hibernate, Vaadin, GWT.
- ◇ Software: Gitlab, Github, JIRA, Eclipse, Visual Studio, Android Studio, HP WebInspect, Acunetix, HP Fortify on Demand.
- ◇ Databases: MySQL, PostgreSQL, MongoDB.
- ◇ Cloud Computing: Amazon Web Services (AWS).

## AWARDS

*Tau Beta Pi*, Vanderbilt University, 2013.

## HOBBIES

Interior design, playing piano & violin, embroidery, cooking, and gardening.