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
EXPERIENCE

◇ **ZH Solutions/HITactics, Inc.**, *Software Engineer*. **Sep'15-present**

  · 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. AWS Kinesis) for various 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, hospitality, logistics, 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**
  Securboration Project (*Aug'14-Jan'15*)
  Research on system security and improvement of Java applications' effectiveness through remediation of security flaws.

  · Detected security flaws using machine learning WEKA library[1].

  · Optimized method tracing by intercepting specific method calls at run-time to reduce noisy data.

  CHildren Eating Well (CHEW) Project (*May'13-Aug'14*)
  CHEW is an Android app that deals with often changing unstructured data to ease the shopping experience of WIC (Women, Infants, and Children) by allowing them to automatically track their allowances.

  · Improved integration among mobile health solutions using *Open-mHealth*[2] and cloud-based Amazon EC2 instance running a database server (MongoDB) that stores purchase data.

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[1] http://www.cs.waikato.ac.nz/ml/weka/
[2] http://www.openmhealth.org/

· 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 C# and .NET.

· Integrated unit tests with the software development cycle.

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

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

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

SKILLS

◇ *Languages:* Java (expert), C# (proficient), C++ (prior experience), JavaScript (prior experience), Python (prior experience).

◇ *Frameworks:* Spring, Retrofit, Vaadin, GWT.

◇ *Software:* Gitlab, Github, JIRA, Eclipse, Visual Studio, Android Studio, HP WebInspect, Acunetix, HP Fortify on Demand.

◇ *Databases:* MySQL, PostgreSQL, MongoDB.

AWARDS

Tau Beta Pi, Vanderbilt University, 2013.

HOBBIES

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