ENEA TSANAI

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EDUCATION

Villanova University, Villanova, PA   *Aug 2015 - Present*

M.S. Software Engineering - Expected May, 2017
- Teaching & Research Assistant - Tuition Scholar
- Current GPA: 4.0

University of Patras, Patras, Greece   *Oct 2009 - Nov 2014*

B.S. Computer Engineering and Informatics
- Thesis: Routing and Multimedia Applications in Wireless Mobile and Vehicular Ad Hoc Networks

EXPERIENCE

Systems Solutions Engineer Intern, Xyntek, Newtown, PA   *Jun 2016 - Present*

- Implementing and testing the frontend layer for hybrid applications in Android and iOS (mobile/tablet devices).
- Implemented reusable frontend templates (form input, validation, submission and resource loading mechanism).
- Technologies used: REST, Ionic, HTML5, AngularJS, Bootstrap, Sass, Selenium and Karma.

Web Developer, CSC Department - Villanova University, Villanova, PA   *Aug 2015- Present*

- Developing a data visualization tool as part of the NSF-Villanova Stormwater Systems Research Project.
- Technologies used: REST, Python-Flask, HTML5, Bootstrap, Sass, JQuery, Dygraphs and MongoDB.

Researcher/Developer, Research Unit 6, Patras, Greece   *Jan 2012 - July 2015*

(Research)
- Focus on ad hoc networks, quality of service, multimedia streaming and routing protocols in mobile and vehicle ad hoc networks. Proposed cross layer mechanisms for routing, video streaming and interface-channel switching.
- Evaluation of routing protocols in mobile and vehicle ad hoc networks through large scale simulations in the simulators NS-2 and NS-3. Published results in well-known international conferences including IEEE and Springer.

(Development)
- Drupal content management system website developer, designer, administrator and maintainer.
- Implemented routing enhancement mechanisms and module extensions on the simulators NS-2 and NS-3.
- Automatized simulation parameterization, execution, data organization and visualization.

Open Source Tutor, Greek Open Source Software Society, Patras, Greece   *Nov 2014 – July 2015*

- Presented advanced material for the NS-2 and NS-3 simulators.
- Mentored teams towards open source contribution to the NS-2 and NS-3 simulators.

Web Group Member, CEID Department, Patras, Greece   *Oct 2014 - June 2015*

- Responsible for site maintenance and extensions via developing custom Drupal modules.
- Wrote manual for the department's website architecture, maintenance and extension procedures.

On Campus Intern: Product Feedback & Marketing, GameOn, Patras, Greece   *Oct 2014 - Feb 2015*

- Campus lead: organized teams for GameOn's app promotion and user feedback collection.
- Used, tested GameOn's app and reported bugs to headquarters in San Francisco.

TECHNICAL SKILLS

- PHP, Python, Java, C++, MySQL, JavaScript, HTML, CSS, Linux Bash (3+ years)
- Drupal 7, LAMP stack, JQuery, Git & GitHub, Bootstrap, REST, NS-2 & NS-3 (2-3 years)
- MongoDB, NodeJs, AngularJS, Ionic, Flask, Sass, Dygraphs, Sencha ExtJS, JUnit, Android, Maven, Jenkins (1-2 years)

PROJECTS

- **AllJumbledUp (2015):** Designed and developed the AllJumbledUp game. Implemented in JavaFX and MongoDB.
- **AdhocNets (2013-2015):** A series of enhancement mechanisms and simulator extensions for routing in ad hoc networks. PDR improvement up to 20%. Implemented in C++, Python and bash scripts.
- **Ru6-web (2014):** Designed and developed the new RU6 website. Migrated data and users. Implemented in Drupal.
- **Wbos (2013):** Designed and developed a web based ordering system for desktop and mobile devices. Implemented in PHP, MySQL, JavaScript, HTML, CSS.
- **MyPlaces (2012):** Developed android app for custom places search. Implemented in Java and Google APIs.

PUBLICATIONS

- C. Bouras, Kapoulas, V., and Tsanai, E., "Performance Evaluation of Routing Mechanisms for VANETs in Urban Areas", *in Algorithms, Probability, Networks, & Games. Springer International Publishing, 2015. 133-153.*
- C. Bouras, Kapoulas, V., and Tsanai, E., "A GPSR Enhancement Mechanism for Routing in VANETs", *in The 13th International Conference on Wired & Wireless Internet Communications (WWIC' 2015), Malaga, Spain, 2015.*
- C. Bouras, Gkamas, A., Kapoulas, V., Politaki, D., and Tsanai, E., "Enhancing video transmission in MANETs utilizing multiple interfaces and multiple channels per node", *in 5th International Conference on Ad Hoc Networks, Barcelona, Spain, 2013.*
- C. Bouras, Kioumourtzis, G., Gkamas, A., Kapoulas, V., Politaki, D., and Tsanai, E., "Evaluation of video transmission in emergency response ad - hoc networks", *in 4th International Conference on Data Communication Networking - DCNET 2013, Reykjavvk, Iceland, 2013, pp. 27-35.*
- C. Bouras, Gkamas, A., Kapoulas, V., Politaki, D., and Tsanai, E., "Evaluation of Routing Protocols for Video Transmission over MANETs that use Multiple Interfaces and Multiple Channels per node", *in 19th IEEE International Conference on Networks (ICON 2013), Singapore, 2013.*

LANGUAGES

- English (fluent), Greek and Albanian (native speaker)