Alin Popa

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PROFESSIONAL EXPERIENCE

Software Developer & Configuration Manager

Softwire Romania
Jul. 2017 – present

Projects:

Managed, developed, and maintained **large-scale cloud infrastructures in the AWS ecosystem** - responsibilities included: updating infrastructure-as-code templates, monitoring logs, configuring alerts, handling live deployments, notifications, emails.

Designed and implemented a software pipeline for **automated video annotation using speech recognition**

Built various functionalities for several web apps, both on frontend and on backend. On the most popular web app, **my work impacted an estimated 50.000 users**

Developed the UI and logic of online maternity/paternity leave request forms on behalf of UK govt.

Built a **version management and deployment pipeline and infrastructure** for TV channel apps.

Developed a portable video player library for Roku smart-TV system, and implemented various BARB measurements for Android and HTML5 video players: Kantar, Youbora, Adobe Heartbeat

Applied extreme programming and agile methodologies, used test driven development approach, was in charge of **development, QA, code review**; team sizes ranging from 2 up to 12 people

Managed the **relationship with several client departments** on behalf of Softwire Romania as part of the CM responsibilities. Managed a Softwire intern to **ensure technical progress and proper development**.

Tech skills:

TypeScript, Node.js, Neo4j Cypher, git, SCSS, LESS, SASS, BrightScript, SceneGraph, React, React Redux, Javascript, Knockout.js, webpack, Python, CMUSphinx, Java, Adobe Heartbeat, Nunjucks, Angular.js, Ruby on Rails, C#, Entity Framework, Python, PHP, AWS ecosystem

Other skills:

Scrum/Agile, extreme programming, unit testing, test driven development, business management

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Teaching Assistant

UPB - ACS
Oct. 2017 – present

Courses:

Logical Engineering (lab) – Conf. Costin Chiru
Computer programming (lab) – S. I. Vlad Posea, S. I. Traian Rebedea
Algorithm analysis (seminar) – S. L. Matei Popovici
Programming paradigms (seminar) – S. L. Matei Popovici

Freelance Programmer

Elance.com / Upwork.com
2015 – 2017

Projects (non-exhaustive):

Built **assembly code and FPGA circuitry simulators** in C with CUI and OpenGL GUI with interfaces to video and audio drivers, serial and parallel ports, timers and counters, stack and function calls, step debugging

Designed, developed and extended various **websites and web plugins in PHP and ASP.NET** - involving web data scrapping, usage of Google Translate and Google Adwords APIs, SQL database backends

Developed VBA scripts for Microsoft Office and C# applications using Microsoft Interop Libraries for both Office and Internet Explorer with the purpose of **task automation and optimization**

Tech skills:

C/C++, C#, OpenGL, HTML, Javascript, CSS, jQuery, Google Adwords API, Google Translate API, Google Maps API, assembly language, operating systems, automated testing, VBA, PHP, ASP.NET, Prolog, Microsoft Interop Libraries

Other skills:

Rapid prototyping, estimating project execution time, communication with clients in non-technic language, price negotiation

RESEARCH

17th RoEduNet Conference: Networking in Education and Research

Sep. 2018

Paper:

AB Popa, IM Stan, R Rughinis – **Instant payment and latent transactions on the Ethereum Blockchain**
https://ieeexplore.ieee.org/abstract/document/8514139

Designed and built an innovative way of implementing latent transaction and credit, on top of the Ethereum Blockchain (Solidity 0.5.0)

Skills:

Ethereum development, ERC20 standard, Solidity, Python, Flask, SQLite, SQLAlchemy, Conda, ECDSA

COMPETITIONS

BEST Engineering Marathon

Apr. 2018

Project:

Developed a web app that employs several location-related APIs to present information for tourists

Awards:

Accenture – third prize

Skills:

Javascript, CSS, Google Maps API, weather forecast APIs, currency conversion forecast APIs, Google Places API

BRD FIRST Tech Challenge **2017-2018 season**	**Volunteering:** Participated as Field Inspector & Referee at FIRST international robotics contest for young children

Innovation Labs 2017 **Feb. 2017 – Jul. 2017**	**Project:** Participated in the ILabs2018 startup pre-accelerator program with SMity, a management and monitoring platform for smart cities. As part of the program, I worked not only on development, but also on customer research, marketing strategies, team communication and management, fund raising techniques, business plan building **Awards:** Innovation Labs – participation to Inovation Labs 2017 final round Orange Romania – Imagine with Orange prize for smart territories category Microsoft – participation to Imagine Cup Romania final round **Skills:** Node.js, CSS, Elastic Search, business development

Linux Embedded Challenge NXP Semiconductors Romania **Apr. 2017 – Jun. 2017**	**Project:** Developed an intelligent adaptive headlights system implemented on a UDOO Neo board **Awards:** LEC 2017 – third prize in the LEC 2017 final round **Skills:** C, Python, image processing, OpenCV, low level programming

HackTGM Sapientia University **Apr. 2017**	**Project:** Developed a platformer arcade video game that uses machine learning to generate harder levels depending on user's facial emotions **Awards:** HackTGM - First prize for best game **Skills:** Unity, game design, game development, Microsoft Emotion Detector API

EDUCATION

2020 – present	**Ph.D. degree in Applied Financial Machine Learning** University POLITEHNICA of Bucharest – The Faculty of Automatic Control and Computer Science
2018 – 2020	Master's degree in Financial Computing University POLITEHNICA of Bucharest – The Faculty of Automatic Control and Computer Science
2018 – 2020	Psycho-pedagogical module, Level II University POLITEHNICA of Bucharest – The Faculty of Automatic Control and Computer Science
2014 – 2018	Bachelor's degree in Computer Science – Application Systems and Artificial Intelligence University POLITEHNICA of Bucharest – The Faculty of Automatic Control and Computer Science
2014 – 2017	Psycho-pedagogical module, Level I University POLITEHNICA of Bucharest – The Faculty of Automatic Control and Computer Science
2010 – 2014	„Mihai Viteazul" National College, Bucharest – informatics class

OTHER AWARDS

2013	Silver Medal and Mention in the National Physics Olympiad, DRM Draxlmaier Romania's prize for the best experimental work and Bucharest City Council's Diploma of Excellence
2011	First Prize in National Informatics Contest "Urmasii lui Moisil" and Bucharest City Council's Diploma of Excellence
2011	First Prize in National Informatics Contest "Tudor Sorin"
2010	Mention in Associated I.M.A.C (International Mathematical "ARHIMEDE" Contest), 4th Edition
2009	Special Mention in the National Chemistry Contest "Raluca Ripan"
2007	Silver Medal and Mention in the National Mathematics Olympiad and "Mihai Botez" Special Prize
2006	Mention in National EuroJunior Program