MIHAIL C COMANESCU

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SOFTWARE ENGINEER

Experienced Technology Specialist with a demonstrated history of working in the information technology and services industry. Working in teams or independently, turning requirements into features using agile methodologies. Easy to work with, yet driven to deliver results under challenging deadlines.

CORE COMPETENCIES

- C/C++,GDB,Valgrind, POSIX, PerfTools, Jemalloc, ZeroMQ, Flex/ Bison, Custom Grammars & Parsers.
- Python, Cherrypy, NLP, Microservices, Matplotlib, ZeroMQ, Fabric, DevOps
- Git,Vim,RPM,BASH,SH bundling
- Java,JME,NetBeans,Swing, Glassfish,Jetty,Tomcat, Servlets, JSP
- Javascript,PHP, HTML/XML, Jquery, Bootstrap
- Apache,Nginx
- Linux (RHLE 5-7 & Derivatives, Debian/Ubuntu, FreeBSD)
- Google Cloud Platform,
- MySQL, Sqlite, BigQuery
- SEC.gov/EDGAR
- National Tape System A/B
- MediaWiki, NextCloud, smbd/cifs, Syslog
- NFS,HA,Virtual Appliances, SaaS, GlusterFS
- KVM, LXC
- Symbology, Taxonomy, S&P, Bloomberg OpenFIGI, London Stock Exchange, Cusip/Isin, D&B, Corporate Graphs
- Algorithms, Software Design, MVC, Software Scaling, Clustering and Sharding
- SSH, OpenVPN, Multi Site Tunneling, OffSite Backup and Replication,
- Disaster Recovery

PROFESSIONAL EXPERIENCE

ACQUIRE MEDIA – Roseland, NJ **May 2013 – present**

Software Engineer / Data Engineer

Improved and extended mission critical products, that drive revenue and directly impact the quality of the company's products.
Worked with colleagues and partners to develop and implement tools that directly aid stock brokers in realizing trading strategies.
Aided the company to expand into the news archive data mining business.

- Extended and optimized the company's real time news processing engine. Improved and reworked components responsible for natural language processing, trading data and entity extraction, automated summarizing, clustering and classification. Optimized to meet 200ms full text processing deadline and improved memory density per engine instance.
- Developed a data mining service in C/C++ around National Market System's Tape A and Tape B which enables R&D to stream in order, quotes and trades for requested securities, as they happened on the National Exchange System for a given time series.
- Worked as part of a research group focused on studying how news events impact the Stock and Forex Markets. Responsible for implementing volatility and correlation monitors for end of day trading data.
- Developed a massive parallel tool in Python which enables sales to efficiently curate, customize and deliver archived content orders, from the company's news repository.
- Improved and extended the company's taxonomy's engine by making use of both new security instruments and new symbology providers, which determines how the company's products make sense of what is relevant in news articles and free form text.

JUNCTION NETWORKS – New York, NY **April 2011 – March 2013**

Software Engineer

Developed, integrated and maintained revenue generating services for the core OnSIP SAAS platform. Patched C source code for open projects such as FreeSwitch and Asterisk, expanded company recognition by actively engaging in the open source community and developed business critical applications for OnSIP on top of these technologies.

- Developed the call parking service by using the soft switch server FreeSwitch alongside the sip proxy OpenSIPs and implemented the service on top of Javascript, Dialplan XML and OpenSIPs routing language.
- Refactored the underlying switch logic to scale PSTN, Inbound bridge and 911 services from a single Asterisk instance to a distributed OpenSIPs and FreeSwitch solution.
- Developed a Java SalesForce CRM extension to manage the company's DID inventory pool. Built a Python application that automatically calls mismatched phone numbers and based on the underlying carrier reports, rectifies the company's ownership status and customer assignment.
- Built a fraud detection package with BASH, PHP and NMAP for identifying unsecured customer deployments and disabling compromised accounts, which saved the company thousands of dollars.
- Developed the company's boot services, to automate the provisioning of every major brand of phone manufactures (Grandstream, Cisco, Polycom, etc). Integrated the company's boot services with third party SIP clients such as Jitsi and Counterpath. Bundled and rolled out branded versions of Jitsi, preprovisioned for Junction Networks.
- Built rpms for core components such as OpenSIPs, FreeSwitch and Asterisk to be distributed with the configuration management system Puppet.

BUSINESS COMPUTING, NETWORK SOLUTIONS – New York, NY **October 2008 – June 2017**

Independent Consultant & Developer

Provided systems analysis, network design, disaster recovery, and hardware services to commercial clients in the surrounding New York Metro Area and reduced license costs by using open source technologies.

- Developed a device tracking solution using Java Servlets/Server Pages and MySQL with a flash based web client for Map plotting and a Midlet counterpart used to track the mobile device, which was delivered as a virtual appliance.
- Designed and built a wide array of virtual appliances for small businesses including virtual phone switches, monitoring systems, AD Controllers, Terminal Servers, Wikis, CRMs, Exchange Mail Servers to meet enterprise requirements.
- Engineered an HA storage solution based on DRBD, Linux HA, NFS, and ownCloud. Optimized KVM deployments for Windows 2000 – Windows 2012 servers families, in a clustered environment.
- Configured multi-site VPN tunneled solutions based on OpenVPN for PBX consolidation, office network access and off site backups.
- Developed a cost effective Thin Client solution based on a RaspberryPI running a personalized Debian disk image and Remmina.

COLLEGE FOR COMPUTER SCIENCE AND MATHEMATICS OF CRAIOVA – Craiova, RO **2007**

Researcher

Researched and drafted ways of strengthening security on ATMs and embedded devices by using Elliptic Curve Cryptography.