

# Andrei-Niculae PETRE

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## About

I'm excited about low-level programming and backend-oriented opportunities. I've got 5 years Python experience as a full stack developer and 1.5 years C++ experience as a TA in university and an interest in open source, c(pp), python, linux, rock climbing and chess. Check [my website](#) for a list of open source contributions. I'm also a member of [ROSEdu](#), an organization that promotes open-source in education.

## Experience

**Software Developer Engineer**, [AWS RDS](#), Bucharest, Romania March 2022 - Present  
**Software Developer Engineer**, [AWS RDS](#), Vancouver, BC Jan 2019 - Feb 2022  
[Amazon Relational Database Service](#) (Amazon RDS) makes it easy to set up, operate, and scale a relational database in the cloud. It provides cost-efficient and resizable capacity while automating time-consuming administration tasks such as hardware provisioning, database setup, patching and backups. It frees you to focus on your applications so you can give them the fast performance, high availability, security and compatibility they need.

**Software Engineer**, [UpbeatPR](#) (prev. Crowdbooster), Bucharest Dec 2015 - March 2018  
**Software Engineer Intern**, [Crowdbooster.com](#), San Francisco, CA Feb 2015 - Aug 2015  
Highly targeted pitching process, enabled through our amounts of data we collected about journalists – PR without relationships.

- One of the first engineers at Upbeat, designed and built systems core to our business in Python, Django, Scrappy, Celery, Elasticsearch, Javascript (ES6), React, Redux and Ruby on Rails
- Worked on all parts of delivering software: design, implementation, testing, deployment, continuous integration, maintenance, instrumentation and monitoring.
- Worked remotely <sup>2</sup>/<sub>3</sub> of my time at Upbeat, but, in spite of that, was able to become an asset to the team, helping my colleagues grow through well-thought and in-depth code reviews. Maintainer of our scraping system and of our data quality efforts.

## Selected accomplishments

- Implemented an indexing system using Elasticsearch, that powered an internal search engine that our PR agents used to pitch journalists - our primary business driver. We've indexed ~16M articles in Elasticsearch.
- Designed and built a cost-effective FeedPoller system that had daily volume of ~650K new urls per day from 20K feeds we had in our db. It was able to poll the feeds efficiently, each worker could handle hundreds of urls over a few seconds, doing asynchronous requests with a combination of gevent and celery. The system could easily scale horizontally.

**Software Engineer**, [dev.Label](#) Aug 2014 - Jan 2015  
Full stack developer, used Groovy, Javascript, Coffeescript and ChromeDriver for working on [trade.it](#), a multi-broker trading application, while in its early development stage.

**Teaching Assistant**, POLITEHNICA University of Bucharest 2013 – 2014, 2016 – 2017  
Taught Data Structures & Algorithms class for 3 years, using C++. Also taught 3 other classes: Object Oriented Programming, Functional Programming and Complexity Analysis of Algorithms.

**Software Engineer**, [UberVU](#) (acquired by HootSuite, ~15M\$) Jun 2012 – Aug 2013  
Social media analytics, monitoring and engaging dashboard.

- Started working at uberVU while still in college, and picked up best practices and new technologies I've never worked with before with tremendous speed.
- First as a Frontend Engineer, working on our own [mozaic.JS](#) (backbone.js based) framework that enabled the new interface that would lead to the acquisition of uberVU, just 4 months after my leave
- Then also working on the REST API for the JS frontend, using Django, Tastypie and MySQL
- Finally, worked on the Python backend pipeline that collected and indexed data into MongoDB and Elasticsearch, as well as on our CI system and deployment scripts

## Education

**BSc**, Major in Engineering and Computer Science Oct 2010 - July 2014  
**University POLITEHNICA of Bucharest**, Romania  
Faculty of Automatic Control and Computer Science