

EXPERIENCE

Commonwealth Computer Research, Inc. (CCRI), Charlottesville, VA

Data Scientist, July 2014 to present

Arpeggio, an analytics and visualization suite for data harmonization in the browser, written in Scala and Angular

- Led the development team, efforts, and delivery of application
- Moved expensive frontend data processing to server to deliver 10-20x speed improvements
- Implemented automated report generation to reduce months of client work down to minutes

GeoMesa, an open-source, distributed, spatio-temporal database written in Scala

- Developed support for ingesting, storing, and querying raster images
- Created a set of CLI tools for ingesting, viewing, and deleting data
- Developed an ingest pipeline with Apache Storm and Kafka to store any type of geospatial data in GeoMesa

Stealth, a dynamic AngularJS geospatial visualization tool capable of animating millions of entities in the browser

- Created a plugin to visualize GDELT data queried from GeoMesa on Google Cloud Bigtable
- Integrated in-house spatial prediction and route planning services into the UI

Genworth, Richmond, VA

IT Intern in DevOps, May 2013 to August 2013

Puppet Manager, a CodeIgniter webapp to communicate with Puppet

- Automated provisioning and orchestration of each Puppet node through a simple UI

F5 Load Balancers

- Tested upgrades to the system before rolling out to the production environment

Commonwealth Computer Research, Inc. (CCRI), Charlottesville, VA

Intern, May 2012 to March 2013

SWIFT, prediction analysis software written in Java and ExtJS

- Resolved 40+ UI bugs and upgraded to new version of common UI framework used at CCRI
- Improved search using Compass and Lucene to allow searching event metadata

SPINOZA, early-warning threat prediction and analysis software written in Java and ExtJS

- Created a punchcard time series visualization using D3 to show frequency of weekly events at certain hours of day

PROJECTS

VOCAL Virginia, Charlottesville, VA

August 2013 to May 2014

VOCAL Admin, an administrative app for VOCAL Virginia developed in the CS Service Learning Practicum at UVA

- Provided free software development and support for a nonprofit organization
- Gained year-long experience in Ruby on Rails, Agile development principles, and client interaction
- Saved 10 hours per week for VOCAL employees and automated many administrative tasks of the organization

Class of 2014 Trustees, Charlottesville, VA

August 2013 to May 2014

BeforeYouGraduate, a webapp to assist in completing the list of 114 Things to do Before You Graduate

- Built and maintained CodeIgniter webapp with 200+ users

Theta Chi Xi Chapter, Charlottesville, VA

December 2012 to present

RushThetaChiUVA, a webapp to automate fraternity recruitment

- Saved 20+ hours of work for the Rush Chairs

EDUCATION

B.A. Computer Science, with Distinction, University of Virginia

August 2010 to May 2014

- GPA: 3.651
- Awards and Honors: Dean's List, Theta Chi National Chapter Foundation Sherwood Blue Memorial Scholarship; Xi Chapter Presidential Scholarship, Third Year Council Ring Scholarship Recipient

PERSONAL

- University of Virginia Young Alumni Council Member and Post Graduate Trustee
- Plays guitar, violin, and ukulele
- Starred in a dramatic reenactment true crime TV show on Discovery Channel