Empirical Pythonista Seeking Involvement With Radical Technologies

(SDN, Distributed Computation, Cryptocurrencies, Distributed Storage, Privacy)

Contact Me:

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Latest Version of This Resume: https://github.com/zancas/resume/blob/master/za_resume.rst

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Skills:

Experienced:

- software engineering: Python, test-driven development, git, Unix security and privacy tools, Tahoe-LAFS, bash
- biology: genetics, evolution

Proficient:

- JavaScript, C, crypto primitive applications (Diffie-Helman, signing, encrypting, etc.)
- probability, statistics, modeling, asymptotic algorithm analysis big-and-little-O

Professional Experience:

Least Authority (2011-2014):

Software Engineer, Operator, Customer Support

Developed features in support of the Simple Secure Storage Service (S4):

- Independently designed, implemented, and tested integration with Stripe payment processing system. (Twisted Web Python, JavaScript)
- Integrated S4 nodes into the Statmover monitoring service. (Python, BASH, AWS EC2/S3)
- Automated PGP signup flow (Python, BASH, Unittest, GPG)
- Automated service provisioning including: payment processing, EC2 launch and Tahoe provisioning. (Twisted Python, git, tahoe-LAFS)
- Identified inadequacy of previous system for snapshooted deployments, designed and implemented Git based snapshotted provisioning. (git)

Operated EC2 clusters

- Designed implemented and deployed customer EC2s (AWS EC2, Python, apt)

- Instrumented customer nodes to support foolscap gatherer and Statmover monitoring; configured and deployed foolscap gatherer monitors. (Python, foolscap, statmover, nagios)
- Maintained, extended and deployed Python Twisted webserver and Foolscap application server. (Twisted Python, foolscap)
- Testing (twisted.trial.unittest, mock, etc.)
    - website
    - service provisioning
    - email

Provided technical support to customers:

- Responsible for responding to and resolving all customer requests in a timely manner using the zendesk issue tracking system

University of California Santa Cruz (2007-2011):

Researcher, Teacher's Assistant: Genetics, Bioinformatics, Statistics

Bioinformatics:

- Wrote python scripts to align molecular sequences and infer phylogenies from them.
- Used support vector machines to detect open reading frames in large yeast data sets

Molecular Biology:

- Molecular cloning to identify molecular signals controlling neural development.
- Used custom java applications to analyze retinal neuron firing patterns and infer properties of mammalian visual processing.

Institute for Behavioral Genetics (2005-2007):

- Used various statistical/clustering techniques eg MCMC and HMMs to detect confounding factors in large scale genetic association studies of molecular neural markers of addiction.
- Managed all types of lab data
- Wrote Python scripts automating data generation and analysis

University of Colorado (CU) Boulder, Undergraduate Research Grants:

Molecular Cellular and Developmental Biology (2002-2005):

- Wrote custom Python scripts to identify distinct clusters of microbial communities in the environment, resulting in peer reviewed publication (http://aem.asm.org/content/72/5/3685.full) and honors graduation.

Environmental Population and Organismic Biology (2000-2002):

- Performed electro-physiological experiments on zebrafish to determine how signal integration led to left-right decisions in various stimulus regimes

Sergeant, United State Marine Corps (USMC) (1995-1999):

• performed duties of Infantryman, Honor Guard, Intelligence Analyst and Squad Leader

Education:

• Fruita Monument Highschool (1995)

• University of Colorado, Boulder (1999-2005)

  • B.A. Molecular Biology, Magna Cum Laude, (GPA: 3.95)

  • B.A. Biochemistry

  • Minors- Applied Math(statistics), Chemistry.

  • Certificates: Neuroscience

  • Emphasis: Computer Science

• University of California Santa Cruz (2007-2011)

  • Molecular Biology; Bioinformatics; Statistics (Nominated TA of the Year 2010)

• Miguel De Cervantes Spanish School, Xela, Guatemala (2011)