

## Objective

I have almost two decades of experience as a web product engineer, much of it building highly-scalable and fault-tolerant cloud-native applications, primarily on AWS and Google Cloud Platform. I have extensive experience with Python web frameworks (including Django, Flask, and Pyramid) and modern JavaScript frameworks (primarily Angular and VueJS). I have excellent communication and teamwork skills and have also mentored many junior- and senior-level developers. I would be ideally suited in a senior-level or lead engineer role at a fast-paced startup or an innovative small to mid-size organization.

## Skills & Abilities

My most recent work experience has involved designing and building a cloud platform as a service offering powered by Docker and Kubernetes, gaining significant experience in many phases of the application lifecycle, including application development (primarily in Python and JavaScript), dependency management, container orchestration, continuous integration and delivery, and application monitoring (primary via Telegraf and InfluxDB).

I have extensive experience designing, building and integrating JSON-based REST APIs, with data stores backed by relational (esp. PostgreSQL) or document (e.g. MongoDB) databases, accelerated by caching layers (primarily using Redis and Conditional HTTP Cache layers) and integrated with asynchronous queues (e.g. via SQS or Kafka) for long-running processes or workflows.

I have considerable experience designing web interfaces via wireframes and prototypes, primarily using Balsamiq Mockups (portfolio samples available upon request). Beyond designing interfaces, I have the skills to completely implement the full stack of a web-based software product or service, taking the product across the spectrum of the application design and development lifecycle.

I have excellent communication and teamwork skills and have also mentored many junior- and senior-level developers on best practices for architectural patterns, security concerns, and user experience matters.

I currently hold AWS Certified Solutions Architect, Developer Associate, and SysOps Administrator certifications, all obtained in March 2017.

My skills and specialties include Angular, AWS (EC2, RDS, S3, SQS, etc.), Balsamiq Mockups, Bootstrap, Boto, CouchDB, CSS, D3, Django, Docker, DynamoDB, Flask, Git, Google App Engine, HTML5, InfluxDB, JavaScript, jQuery, JSON, Kubernetes, MySQL, Postgres, Pyramid, Python, Redis, REST APIs, SVG, Telegraf, VueJS, and Zurb Foundation.

## Work Experience

### **Cloud Platform Engineer, Datapipe and Rackspace**

June 2017 – Present

Senior-level Platform Engineer of Trebuchet, a cloud platform powered by Docker, Kubernetes, et. al.

As the lead UX designer, UI developer, and full-stack engineer on the Trebuchet platform, I was responsible for designing the user experience and developer experience for the platform-as-a-service offering. I also built the front-end UI of the product, providing a "single pane of glass" offering that integrated with the various services and REST APIs of the cloud platform. I also took on the role of a developer evangelist, providing sample applications that could be deployed on the Trebuchet platform, and worked on developer-facing documentation that offered a shallower on-ramp for deploying apps on Trebuchet.

My responsibilities included the following:

Built a web UI that integrated numerous RESTful APIs and microservices to provide customer-facing and internal admin-facing user interfaces as a "single pane of glass" for a cloud platform.

Developed and documented user personas to drive the feature development of the cloud platform. Of the seven personas, four were customer-focused roles and remaining were internal platform-specific ones.

Created process flow diagrams, user flow diagrams, and site maps to effectively communicate the "big picture" ticket items of the platform.

Designed UI wireframes and prototypes to anchor feedback based on discussions with team members and stakeholders prior to product and service development and/or improvements.

Mentored team members during deep-dive code walkthroughs and review sessions.

Provided product and feature demos to stakeholders and the wider platform team every 2-3 weeks.

### **UI Architect and Lead Engineer, Hewlett Packard Enterprise**

November 2014 – June 2017

Architect and Lead Engineer of the Eucalyptus Management Console, powered by Pyramid (Python Web framework), Boto, AngularJS, and Zurb Foundation. See <https://github.com/eucalyptus/eucaconsole>

See the description in the Eucalyptus Systems listing for more details, as Eucalyptus was acquired by HP in Fall 2014.

### **UI Architect and Lead Engineer, Eucalyptus Systems**

September 2013 – November 2014

Architect and Lead Engineer of the Eucalyptus Management Console, powered by Pyramid (Python Web framework), Boto, AngularJS, and Zurb Foundation. See <https://github.com/eucalyptus/eucaconsole>

Within Eucalyptus, I was brought on board to tackle many of the issues with the 3.x series of the Eucalyptus Management Console, which had numerous performance-related issues and suffered constant regressions due to a brittle architecture and a convoluted code base. Within my first month of joining Eucalyptus in late August 2013, I proposed adopting a completely new architecture for the console and successfully drove the implementation of the redesigned and revamped product while mentoring a relatively inexperienced team. I not only implemented the new design and re-architecture, I added a considerable number of new features within a single release cycle.

To facilitate development of a stable code base for the revamped product, I moved the entire console team to a new development model utilizing GitHub pull requests to facilitate easier code reviews. Pull requests were hooked up to CI tests via Travis and Jenkins, freeing up the QA team to write more automated tests for new features rather than vigorously checking for regressions via manual testing. The code review process not only ensured standards and best practices were followed, it also allowed the development and QA teams to learn from each other, provide tips and tricks, and promote a shared ownership of code.

The new development model I implemented also facilitated external contributions, allowing the UI team to accept bug fixes and language translations from the community in a more efficient manner. The new architecture significantly increased the velocity of the team, and adhering to open standards and adopting best-of-breed frameworks allowed junior developers to easily ramp up to develop features with increased velocity and fewer regressions.

### **Product Engineer, ClearCare**

September 2012 – September 2013

During my tenure at ClearCare I designed and developed features for a Django-powered SaaS app for home care agencies to manage care providers and provide resources for family members of care receivers to keep up-to-date with their loved ones. I was tasked with designing and implementing an invoicing and payment system, a critical component of the platform and product, shortly after joining ClearCare. I also evangelized code reviews (via Bitbucket), designed wireframes for new features, and advocated using AngularJS to facilitate development of rich user interfaces for the product.

Technologies used include: Python, Django, PostgreSQL, Bootstrap, Balsamiq Mockups, AngularJS, Amazon EC2, ElasticSearch, Celery, RabbitMQ, Twilio

### **Lead Engineer, InMobi**

February 2012 – September 2012

As a product engineer of the InMobi supply-side publishing platform, I built a web dashboard product that offered insight on clicks, usage, and advertising revenue metrics for web and mobile app publishers.

Technologies we used included Python, Django, PostgreSQL, jQuery, Bootstrap, Highcharts, Backbone.js, OmniGraffle (for mockups), and Handlebars.js

### **Software Engineer, Meebo**

March 2011 – February 2012

A developer of the Meebo Bar Dashboard product, which allowed publishers who have deployed the Meebo Bar on their site to customize widgets on the Bar and view analytics (e.g. click stats and revenue reports).

Notable accomplishments include...

A rewrite of Meebo's Buddy Icon Service, where I revamped the buddy icon service during my first month at Meebo, migrating the app from mod\_python to a full WSGI-compliant, gunicorn/gevent-based service, improving the performance and reducing resource utilization by an order of magnitude.

Providing NodeJS-based API documentation, where I wrote Meebo's first NodeJS-based web application (meebo-iodocs), providing documentation for the Meebo Checkins REST API.

Meebo Web Application Boilerplate, in which I architected and developed a boilerplate project (meebo-webapp-kickstart), to be adopted as the common underlying framework for all non-trivial Python-based Web applications at Meebo.

Re-architecture of Meebo Dashboard, where I led a series of back-end re-architecture discussions for the Meebo Dashboard and Meebo Bar products.

Re-architected the Meebo Bar's static file deployment tool (meebo-syncer) to be more efficient, more maintainable, and more resilient to error cases.

Technologies used at Meebo included Python, Django, Flask, Werkzeug, YUI3, jQuery, Bootstrap, NodeJS, MySQL, CouchDB, and Cassandra.

### **Sr. Web Developer, The Sacramento Bee**

August 2009 – February 2011

Built (client-side and server-side) interactive databases and features such as the California State Worker Salary Search ([sacbee.com/statepay](http://sacbee.com/statepay)), the Calif. Legislator Voting Record ([sacbee.com/votingrecord](http://sacbee.com/votingrecord)), the Calif. State Parks feature ([sacbee.com/stateparks](http://sacbee.com/stateparks)), and the Sacramento Connect Network ([sacramentoconnect.com](http://sacramentoconnect.com)).

Introduced/evangelized Git and GitHub as the definitive source code control for the engineering team.

Technologies we used included Python, Git, GitHub, Google App Engine, YUI, jQuery, MySQL, Amazon EC2, and Amazon RDS.

### **Knowledge Management Consultant, CalPERS (Contractor)**

October 2005 – May 2009

Built an Intranet Portal and Knowledge Management System to allow state employees and external contractors to collaborate and share documents to facilitate a revamp of the online state employee retirement system.

Technologies used included Python, Zope, Plone CMS, YUI, and MySQL.

## Education

### **University of California, San Francisco**

1997 – 2000

D.D.S. program

Took a leave of absence in early 2000 to pursue tech opportunities in Silicon Valley

### **University of California, Irvine**

1992 – 1997

B.S., Biology, Psychology

## Certifications

### **AWS Certified Developer Associate**

Certificate # AWS-ADEV-10074

Obtained March 22, 2017

### **AWS Certified Solutions Architect Associate**

Certificate # AWS-ASA-34089

Obtained March 25, 2017

### **AWS Certified SysOps Administrator**

Certificate # AWS-ASOA-7606

Obtained March 29, 2017

### **Hewlett Packard Technical Career Path – Master Level Certification**

My Master level nomination form, which details projects I have worked on and business process improvements I implemented at numerous organizations, is available upon request.

Obtained Q1 2015

## GitHub Contributions

### **Eucalyptus Management Console**

<https://github.com/eucalyptus/eucaconsole/graphs/contributors>

October 6, 2013 – February 2017

I logged over 2,700 commits to the mainline branch, adding well over half a million lines of code, primarily leveraging Python and AngularJS. I also contributed hundreds of unit tests (via Python and Jasmine/Karma) and functional tests (using Python and Selenium WebDriver).

### **Flask App Engine Template**

<https://github.com/kamalgill/flask-appengine-template/graphs/contributors>

September 19, 2010 – Present

I have added over 150,000 lines of code to a project that has over 1,000 stars and over 200 forks on GitHub. This project is mentioned in the official Flask documentation as the definitive way to deploy a Flask app to Google App Engine.

## Recommendations

### **Josh Leder**

Lead Platform Engineer at Datapipe and Rackspace

March 1, 2018

Kamal is an insightful and dedicated engineer, highly skilled in both the engineering and user experience of complex systems. He consistently shows a keen understanding of user's needs, especially within the larger context of software architecture. Kamal's ability to bridge that gap would make him a unique and powerful asset to any engineering team that cares about high quality software.

I've been lucky enough to work with Kamal closely for nearly a year as he delivered a clean, functional user interface fronting a complex microservice architecture. His attention to detail and excellent teamwork led him to identify and resolve countless defects in those systems, driving adoption of best practices and core principles of software quality.

Pythonista extraordinaire, Kamal proved to be an invaluable resource to me and to his teammates. Between evangelizing first class Python support across the Platform to hands-on pair coding sessions, Kamal's unmatched knowledge of Python and its ecosystem was a constant source of fresh ideas to our team.

As the lead of user experience design, Kamal demonstrated exceptional communication skills. His clear, well-prepared demos during sprint reviews and to outside stakeholders consistently represented the best face of the product. This agile and iterative approach quickly drove feature development and "dog fooding" across the whole team. His enthusiasm and attention to detail made Kamal an engaging and influential champion of our product and core values.

Kamal's passion, dedication, and friendly demeanor truly set him apart from the crowd. I would work with Kamal again in a heartbeat.

### **Jenny Loza**

UX Designer and Product Manager at Eucalyptus Systems and Hewlett Packard Enterprise

October 16, 2014

Kamal is one of the most capable front-end developers I know. He has proven to be thorough and thoughtful in his work as an individual contributor, and open to discussion while remaining strong as a mentor to other developers and technical team leader. His broad understanding of tools, technologies and processes, and collegial manner have enabled him to successfully lead the team to create a well-written, testable, comprehensible and extensible codebase. I trust Kamal and value his opinions, and greatly enjoy having Kamal as part of my team.

### **Peter Sheats**

CTO at ClearCare

October 29, 2014

Kamal worked for ClearCare during an early stage of our company and added tremendous value during that time. As one of his first projects he tackled a very challenging project (invoices and payments) and delivered a

very well-designed module on a tight schedule and from very sparse specs. Many of his contributions to that module are still in production today being used daily by thousands of users.

Kamal is very meticulous about his code quality, has wonderful communication skills, and has a passion about his craft that few can match. He introduced several great practices and technologies into our project such as using pull requests for code reviews, AngularJS, and Karma for frontend testing. Kamal is constantly learning and staying abreast of the latest technologies. You can tell he knows how to distinguish a trend from a fad.

Based on my experiences with Kamal on my team, I know Kamal will be successful in any role and a great asset to any team.

**Blaine Wasylikiw**

Director of Digital Media, The Sacramento Bee

March 30, 2011

During his tenure as a Senior Web Developer on our Interactive team, Kamal exemplified the key characteristics a manager hopes for in the role: well-versed in a variety of programming languages and platforms; creative, user-focused mindset in his approach to development; forward-thinking and on the cusp of new & emerging technologies; collaborative team member who continually strives to enhance and support the efforts of those around him. On each and every project he worked on, his approach and the end results were always top-notch, resulting in success in all measurements. It was a pleasure to have his talents as part of our team, and the organization as a whole is better off thanks to his time at The Bee. I recommend him wholeheartedly.

## Online Profiles

### **Web**

<https://www.kamalgill.net>

### **GitHub**

<https://github.com/kamalgill>

### **LinkedIn**

<https://linkedin.com/in/kamalgill>

### **Twitter**

<https://twitter.com/kamalgill>