

# Jin (Vincent) ZHANG

SOFTWARE ENGINEER

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## EDUCATION

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2009 **University of California San Diego**

Bachelor of Science Bioinformatics with spec in Computer Science

## SKILLS

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Python • Flask • Django • HTML • CSS • Javascript • Linux • Git • SQL • SQLAlchemy

## PROJECTS

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### **StellarRobot**

A web application designed for the Stellar digital currency backed by the popular payments company Stripe. StellarRobot tracks deposits made to the application and sends a corresponding return payment minus a small fee. StellarRobot takes advantage of Stellar's promotion for sending your first payment and receiving a bonus from the Stellar Foundation.

The technology stack used to build StellarRobot was Python, Flask web framework, PostgreSQL database, websockets to listen for incoming transactions, Celery for task management, RabbitMQ for messaging queue, Redis to handle task locking, and Nginx as a reverse proxy in front of Gunicorn web server hosted on Digital Ocean.

### **CheckRobot.com**

A free check printing service for small businesses and home users. Users are able to add their bank account details and save regular payees so writing a check is as simple as entering in the amount. Written in Python, Flask web framework, PostgreSQL database, Twitter Bootstrap for user interface, ReportLab for PDF generation and SSL/HTTPS on Nginx.

### **RentMath.io**

A simple rental property income calculator. Calculates monthly mortgage payments, cash flow, capitalization rate, and other metrics. Written in Python, Flask web framework and Twitter Bootstrap.

### **Areacodely.com**

A location lookup tool using the first six digits (area code and prefix) of a United States phone number. Data is gathered from the North American Numbering Plan Administration (NANPA). Written in Python, Flask web framework and PostgreSQL database.

## WORK EXPERIENCE

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### Python Developer

2014 - Present

### Freelance

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- Freelance Python developer working for clients on projects including web development using Django and Flask web frameworks.
- Created an internal web application to track packages using QR codes. The application created printable QR labels that could be scanned back into the application using a mobile device.

### Manager

2012 - 2016

### Asian Gourmet

Barre Vermont

- Manage kitchen and server staff, interact with customers, and other management duties.

### Bioinformatics Research Associate

2009 - 2011

### Veterans Medical Research Foundation

San Diego California

- Python programming language used to implement algorithms, data processing, and various automation tasks.
- Conduct data analysis of Affymetrix and Illumina microarray gene expression data including visualization techniques such as heatmaps and hierarchical clustering methods.
- Design protocols and carry out wet lab experiments under sterilized flow hood environments.
- Contributions led to four manuscript authorships in scientific peer reviewed journals including one as first author.

## PUBLICATIONS

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[1] Nadejda Beliakova-Bethell, **Jin X Zhang**, Akul Singhania, Vivian Lee, Valeri H Terry, Douglas D Richman, Celsa A Spina, and Christopher H Woelk. Suberoylanilide hydroxamic acid induces limited changes in the transcriptome of primary CD4+ T cells. *AIDS* 27, 29-37. 2013.

[2] **Jin X Zhang**, Christopher H Woelk, Lorraine Walls, Suganya Viriyakosol, Akul Singhania, Theo N Kirkland, and Joshua Fierer. Factors regulated by interferon gamma and hypoxia-inducible factor 1A contribute to responses that protect mice from *Coccidioides immitis* infection. *BMC Microbiology* 12:218. 2012.

[3] Josué Pérez-Santiago, Rebeca Diez-Alarcia, Luis F Callado, **Jin X Zhang**, Gursharan Chana, Cory H White, Stephen J Glatt, Ming T Tsuang, Ian P Overall, J Javier Meana, and Christopher H Woelk. A combined analysis of microarray gene expression studies of the human prefrontal cortex identifies genes implicated in schizophrenia. *Journal of Psychiatric Research* 46, 1464-74. 2012.

[4] Brett N Bowman, Paul R McAdam, Sandro Vivona, **Jin X Zhang**, Tiffany Luong, Richard K Belew, Harpal Sahota, Donald Guiney, Faramarz Valafar, Joshua Fierer, and Christopher H Woelk. Improving reverse vaccinology with a machine learning approach. *Vaccine* 29, 8156-64. 2011.