Michael L. Otte

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SELECTED EXPERIENCES

Freenome, South San Francisco, CA   **September 2015-Current**
CTO, VP of Product, Software Engineer - freenome.com

I created several big data pipelines, alone and in a small team, that process raw genomic data (raw read data), conduct automated or semi-automated feature selection, and input into various statistical learning methods (e.g. various perceptrons, random forest, and more). With the uniquely challenging "big" dataset, I had the opportunity to implement a number of feature selectors on the genomic datasets in various AMQP systems and format them into different types of matrices. These pipelines improved efficiency of processing by 10-100X.

I also developed a lung cancer risk prediction application and a web-based genome browser (a visualization to analyze one or more genomic samples), which is often used for manual pattern recognition, analysis, and inter-sample comparison from vcf format files (essentially analytical/processed files of genetic variants). For about a year, I worked with engineers at Google, Microsoft Azure, and AWS to implement feature suggestions on their platform and improve their big data and genomics/bioinformatics offerings (e.g. Google cloud functions, azure IAMs, Google genomics, etc.).

- Helped grow the company from 4 to 30 people and raise over $70 million
- Created, lead, and developed 3+ critical projects (using Python, React, HTML/CSS/ES6)
- Worked with ML experts and mathematicians to implement statistical models

Acorn, New York, NY - *Exited/Closed*   **May 2014-May 2015**
COO, Lead Engineer, Co-Founder - www.facebook.com/acornapp/ (formerly acornapp.co)

Coded a novel, patented location-acquisition tech for mobile. Setup a highly scalable distributed system. Coded a RWD web application that was rated over 90% by Google Page Speed and Yahoo YSlow by utilizing image compression to JS minimization. This reduced overall latency and page load speeds by over 80%. Also, created a mobile-server client API and an OAuth 2.0 Protocol API to enable more powerful and modular computations for the mobile app.

RECENT DEVELOPMENT EXPERIENCE

Python, Javascript (including React, Node.js, Angular.js, jQuery), HTML5+CSS3, PostgreSQL, MySQL, Nginx + gunicorn + uWsgi, shell scripting, PHP ($\sim$2010), Java ($\sim$2007)

EDUCATION

Dartmouth College, Hanover, NH - *Socio-Cultural Anthropology*   June 2013

INTERESTS

I enjoy contributing to open source projects (e.g. Airflow), conducting biological and ethnographic research, rock climbing, surfing, singing, and volunteering. I started coding in Hypercard when I was 10, and proceeds from my freelance work were donated to charities (e.g. UNICEF). I used to be an EMT (an "ambulance driver") and was the personal assistant to a former U.S. surgeon general.