

## Objective

- To supplement my income with short to medium term work in the software industry as I pursue my own software development projects.

## Skills and qualifications

- Doctorate in computer science, University of Massachusetts Lowell.
- Over ten years experience in software development.
- Programming language knowledge including Javascript, Python, Java, Ruby, C#, C, SQL, others.
- Experience in web services, machine learning, database design, video game creation, graphics implementation, audio synthesis, and bioinformatics.
- Ability to rapidly learn new problem domains, particularly in scientific fields.
- Highly developed skill at discovering and diagnosing bugs, both in existing code and at the architecture and specification level.

## Recent projects

- Created, and composed the soundtrack for, freeware platform game Hyper Pixel Ten Thousand. See <http://okayideas.com/hyperpixeltenthousand/>.
- Created many small pieces of software, with a particular focus on games you can play directly in your Web browser. Please see my selected portfolio at <http://okayideas.com/portfolio/>.

## Employment history

### *Gene Home*: Software engineer (2009-2016)

- Created bespoke software for clients, mostly in biotechnology.
- Estimated feasibility and duration of software projects under consideration.
- Designed databases to meet client requirements.
- Created web service back ends and GUIs.
- Deployed software to Unix systems.
- Migrated clinical data across data formats and medical ontologies.
- Modified genomic analysis algorithms to use cloud map-reduce technology.

### *Edison Mission Marketing and Trading (through Highview Partners)*: Junior analyst (2009)

- Revised existing Python data acquisition programs for readability and maintainability.
- Revised existing Transact-SQL stored procedures for readability and maintainability.
- Created and modified acquisition processes for multiple types of electrical grid data.
- Designed tables for Microsoft SQL Server and Oracle databases.
- Consulted with internal end-users to clarify underdocumented data semantics.

### *University of Massachusetts Lowell*: Teaching assistant (2000-2008)

- Assisted in teaching upper level classes with class sizes up to 30.
- Participated in developing lesson plans and selecting course topics and content.
- Graded exams, projects and homework assignments,
- Assisted professors with writing of exams and homework.
- Provided students with personal guidance in understanding concepts, projects, and assignments.