

PETER H. GOLDSTEIN

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Education: Brown University 2008: Computational Biology ScB

<i>Computer Science</i>	<i>Biology</i>	<i>Mathematics</i>	<i>Computational Biology</i>
• Algorithms	• Genetics*	• Linear Algebra	• Algorithm Design
• Data structures	• Eukaryotic Cell Biology	• Abstract Algebra	• Topics
• Artificial Intelligence	• Biochemistry*	• Statistics	• Capstone*
• Graphics	• Microbiology	• Genomic statistics*	• Senior Thesis*

* These classes are in progress

Experience

- Brown International Genetically Engineered Machine team: **Lab technician** Summer 2006

Designed novel genetic pathways. Implemented new pathways in E. Coli using synthetic biological techniques and parts from the national registry. Performed transformations, DNA extraction mini-preps, bacterial manipulations including preparing competent cells. Designed computer models for dynamics of genetic machines.

- Brown Graphics Lab, ChemPad: **Development Engineer** Winter, Summer 2006

ChemPad is a tablet PC program that takes drawn molecular structures as input and displays rendered 3D structures. Wrote graphics and logic code in C# and C++. Expanded program functionality by porting to newer graphics libraries. Eliminated all known bugs.

- Computer Science **TA/ Head TA** Fall, Spring 2005-2007

Taught other students material from courses in

- Object-oriented design
- Algorithm design
- Computer graphics

Wrote and maintained

- website
- bash shell scripts
- PowerPoint slides
- LaTeX handouts
- grades database

Gave lecture on several occasions.

- As head TA for a new course this semester, I have been responsible for designing assignments, writing their support code (Java), and organizing a staff of TAs to best serve the students' needs.

Skills

Platforms: Unix, Linux, MacOS X (or earlier), Windows XP (or earlier)

Languages: Java, C, C++, C#, Scheme, Python, bash shell scripting

Wetlab Protocols: Transformations, gel electrophoresis, restriction digests, competent cell prep

Life

- Play viola, clarinet in orchestra and chamber music
- Founded and sing in Gilbert & Sullivan light opera; Tech chair, Treasurer
- Founded Brown University's Whistling Choir
- Enjoy rock-climbing, tumbling, tea
- As part of $\Lambda\Delta\Phi$ (coed literary society), elected Secretary, Cultural Librarian, Literary Chair, and Tea Chair