# Daniel Cheng

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## **EDUCATION**

Bachelor of Science, Computer Science The University of Texas at Austin Turing Scholars Honors Degree GPA: 3.8 / 4.0 2012 - 2015

# WORK EXPERIENCE

Software Developer Intern

Summer 2013, Summer 2014

- CodePartners LLC
  - Created frontend and backend of web-based toolkit that provides clients with an intuitive and efficient way to manage data
  - Developed toolkit using the Intacct API, ASP.NET MVC 4, C#, jQuery, HTML5, CSS, and WebSockets
  - Created cloud-based development and testing VMs using Windows Azure
  - Created logo animations and video introductions using Blender

#### Student IT Technician

Fall 2012 – present

Division of Housing and Food Service, The University of Texas at Austin

- Provide front-line tech support to administrative users in offices, residence halls, kitchens, facilities shops, and University apartments
- Install and maintain computer hardware, software, printers, and other peripheral devices in a 200+ workstation business computing environment

#### RESEARCH

BLIS (BLAS Library Instantiation Software) for GPUs

Fall 2014 – present

- Automatic code generation for dense linear algebra libraries targeting GPUs using OpenCL
- Explore parallelization methods for scientific computing libraries

# COURSE PROJECTS

Artificial Intelligence Honors: Pacman in Python

Spring 2014

- Implemented concepts in the A.I. field as pacman-playing intelligent agents
- Implemented algorithms for search (bfs, dfs, A\*), multi-agent planning (minimax), reinforcement learning (Q-learning), tracking (particle filters), and classification (Bayes, perceptron)

## Programming for Performance

Fall 2013

- Implemented vectorized, parallelized, and blocked algorithms for fast matrix operations and data visualization
- Implemented efficient graph representations and algorithms

Autonomous Intelligent Robotics: Freshman Research Initiative

Spring 2013

- Programmed Segway robots to follow objects, detect and avoid obstacles, and plan paths in C++ using ROS and OpenCV
- Read and interpreted data from cameras, depth sensors, and laser range sensors

### **SKILLS**

Programming Languages/Tools: Java, C, C++, C#, ASP.NET MVC, JavaScript, jQuery, Python, Visual Studio, LATEX

Written/Spoken Languages: English (native), Mandarin Chinese (native), Classical Latin (beginner)