# PHONG V. CAO

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### **EDUCATION**

**Stony Brook University** 

Stony Brook, NY

Bachelor of Science in Computer Science

May 2015

Relevant Coursework: Analysis of Algorithms, Finite Automata, Object-Oriented Analysis & Design, Theory of Computation,
System-Level Programming, Discrete Mathematics, Calculus, Statistics & Probability, Linear Algebra

# COMPUTER SKILLS

Database: Microsoft Access, MySQL, SQLite, PostgreSQL

Operating Systems: Microsoft Windows, Redhat/Fedora Linux, Ubuntu Linux

Software: Drupal, Acquia, Apache, Varnish, CAS, Cron, Adobe Photoshop, Illustrator, Dreamweaver

Programming Languages: C, C++, Java, Python, JavaScript, PHP, Visual Basic

Libraries: STL, Boost, Django, Swing, jQuery, SQLite3, Bootstrap, AngularJS, enchant.js, MediaInfo, Libxml2

Linux Libraries: GTK+/Gtkmm, GStreamer/GStreamermm, libxml++, libnotify, gettext Markup/Scripting/Query Languages: HTML, CSS, XML, XSD, SQL, Bash, VimL

Development Tools: Eclipse, Netbeans, Vim, Git, GDB, GCC, Valgrind, Autotools, GNU Make

#### RELEVANT EXPERIENCE

**Stony Brook University** 

Stony Brook, NY

Research Assistant - Computer Science Department

Sept 2014 - Present

- Collaborate with 6 other students under the supervision of Professor Richard McKenna to develop the web version of PathX.
- · Lead the design and implementation phases of the project along with 2 other team members.
- $\bullet \ \underline{Design\ Patterns\ \&\ Algorithms:}\ Dijkstra's\ Shortest\ Path,\ Graph\ Cycle\ Extraction\ (DFT),\ Singleton,\ Observer,\ Prototype,\ Facade$

**Stony Brook University** 

Stony Brook, NY

Student Programmer - Division of Information Technology

May 2014 - Present

- Collaborate with OVPR DoIT Team to develop http://research.stonybrook.edu/, the official website of Stony Brook Research Office.
- Script an Oracle Taleo theme for Stony Brook At Work, a HRMS used by SBU Human Resource Services.
- Notable Contributions: YoutubeVideoGallery, MightySliderView, Fluid Mobile Layout, HRSTaleoBranding, DynamicImgMap

**Stony Brook University** 

Stony Brook, NY

 $Teaching\ Assistant\ -\ Computer\ Science\ Department$ 

Sept 2013 - Dec 2013

- · Assist students during lab sections by reviewing lecture notes, homework assignments and lab exercises.
- Proctor examinations with instructors and other teaching assistants.
- $\bullet \underline{\textbf{Classes Assisted:}} \textit{Object-Oriented Programming in Java (Dr. Paul Fodor)} \\$

## PROGRAMMING PROJECTS

### **Dingo Media Manager**

Stony Brook, NY

 $Per sonal\ Open \hbox{-} Source\ Project$ 

Jun 2011 - Present

- Develop and maintain Dingo Media Manager, an open-source software that helps Linux users manage and enjoy their video and audio collections.
- Languages Used: C, C++, SQL (SQLite), XML
- · Libraries Used: Boost, Gtkmm, GStreamermm, MediaInfo, SQLite3, libxml++, libnotify, gettext
- Design Patterns: Observer, Delegation, Facade, Model-Delegate (Model-View-Controller)

PathX Mini-Game

Stony Brook, NY

Programming Course Final Project

Feb 2014 - May 2014

- Developed PathX, a single-player mini-game where the player assumes the role of a robber driving through numerous obstacles to bring the robbed money to the hideout.
- · Languages & Libraries Used: Java, XML, Swing, XSD
- · Algorithms Applied: Dijkstra's Shortest Path, Depth-First Traversal (Graph Cycle Extraction), Recursion
- Design Patterns: Singleton, Prototype, Observer, Delegation, Facade, Model-View-Controller

#### **Stony Brook Research**

Stony Brook, NY

Part-time Job Team Project May 2014 - Present

- Collaborate with OVPR DoIT Team to develop http://research.stonybrook.edu/, the official website of the Office of the Vice President for Research.
- Languages Used: PHP, JavaScript, HTML, CSS
- Technology Stack: Acquia, Drupal, Varnish, Apache, MySQL, CAS
- Libraries Used: PHPTemplate, phpCAS, jQuery, jQuery UI, Bootstrap, MightySlider