**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.

• 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 - Sept 2014

• 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.

• Classes Assisted: *Object-Oriented Programming in Java (Dr. Paul Fodor)*

**PROGRAMMING PROJECTS**

**Dingo Media Manager** Stony Brook, NY

*Personal Open-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 - Sept 2014

• 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