Zhuofang Dai

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Skills

Game Dev. **Python, C++, BigWorld, Havok, Unity3D, Lua, SVN**.

Java Web Dev. **Java, JavaScript, Spring, RESTful API, HTML, JSON, Jackson, Maven, Git**.

Engineering **TDD, Agile**.

English **IELTS 6.5**, *fluent in spoken and written English*.

Work Experience

2014–2017.7 **Senior Game Developer at Netease Games**, *Inception Group*.

- Game Engine: texture process system, animation system and character state machine system.
- Game Logic: hero skills framework; fog of war; synchronized online combat framework.
- Performance optimization for games in architecture and language(Python/C++) levels.

2013 **Summer Analyst at Morgan Stanley**, *RATE Group*.
Implemented a web-based server using JAVA Spring and SOAP, which provided services of interest rate derivatives risk calculation used by the team internally.

Community

GitHub **`github.com/DrawFun`**.

Linkedin **`linkedin.com/in/zhuofang-dai-5b08592b`**.

Awards

2016 **Netease Technological Invention Award**, *The Second Prize*.

2014 **Outstanding Graduates Awards of Fudan University**.

2013 **National Scholarship of Fudan University**.

2012 **NVIDIA CUDA Campus Programming Competition 2012**, *The First Prize*.

2011 **NVIDIA CUDA Campus Programming Competition 2011**, *The Second Prize*.

2010 **"Jiangsu Software Cup" National Software Competition**, *Excellent Prize*.

2009 **The 7th Nanjing University Innovative Software Competition**, *The Second Prize*.

Education

2011–2014 **MS in System Software**, *Software School, Fudan University*.
3-year academic research mainly on accelerating concurrency bug detection by GPGPU.

2007–2011 **BS in Software Engineering**, *Software School, Nanjing University*.

Project Experience

2017.7 **XChange**, *Java*, Independent Project, github.com/timmolter/XChange.
XChange is a popular(1.1K stars) library providing a simple and consistent API for interacting with 50+ Bitcoin and other crypto currency exchanges for trading and accessing market data.
I helped the project in designing and implemening most accounting and trading functions of jubi.com xchange provider.

2014–2017.7 **WildFire**, *Python, C++*, Company Project, wf.163.com/index.html.
WildFire is a 3D action multiplayer online battle arena (MOBA) video game relseased in 2016.
I was responsible for texture processing, physical destruction system and fog of war system. I also focused on performance and memory optimization in architecture and language level.

2015–2016 **WildFire Awakening**, *Python, C++*, Company Project.
This project is a 3D action mobile game published in the Apple Store in March 2017.
I designed and implemented the hero skills framework, the synchronized online combat framework and the state machine of hero behavior.

2011–2014 **Hydra**, *CUDA, C*, Research Project.
Hydra aims at improving concurrency bug detection performance on fused CPU-GPU architectures. By parallelizing the detection algorithm on GPGPU, Hydra achieves a nearly overhead free runtime detection.
This research has been publiched in ICPP2014.

2012 **HTM+**, *CUDA, C*, Independent Project.
HTM+ is a CAPTCHA breaker based on HTM algorithm, a neural network algorithm in pattern recognization. By leveraging GPGPU acceleration, HTM+ improves the original algorithm to a high parallelism level and achieves up to 45x speedup w.r.t the sequetial Intel i7 version.
This project won the First Prize in NVIDIA CUDA Competition 2012.

2011 **Delta-Stepping+**, *CUDA, C*, Independent Project.
Delta-Stepping+ is the CUDA version of Delta-Stepping algorithm, which is an state-of-art algorithm in the SSSP(Single Source Shortest Path) area. It achieves 30x–60x speedup w.r.t the sequetial Intel i7 version.
This project won the Second Prize in NVIDIA CUDA Competition 2011.

2010 **Vehicle Recognition**, *C++, MFC*, Independent Project.
This system can identify abnormal behavior on the basis of perception of moving targets. I was responible for the UI implementation based on MFC.
It won the Outstanding Prize in Jiangsu Cup National Software Competition 2010.

2009 **Dream Bubble**, *Java ME*, Independent Project.
Dream Bubble is a bomb-man game based on Java ME, Java Wireless Toolkit, supporting man-machine games and multi-players(four at most) online games via bluetooth. I was responsible for the network communication and synchronizaton via bluetooth.
This project won the Second Prize in Software Design Competition of Nanjing University 2009.

Publications

2014 **Zhuofang Dai**, Zheng Zhang, Haojun Wang, Yi Li and Weihua Zhang, *Parallelized Race Detection Based on GPU Architecture*, 2014 Annual Conference of Advanced Computer Architecture(ACA 2014), **Best Paper Award**.

2014 **Zhuofang Dai**, Haojun Wang, Weihua Zhang, Haibo Chen and Binyu Zang, *Hydra: Efficient Detection of Multiple Concurrency Bugs on Fused CPU-GPU Architecture*, The 43rd International Conference on Parallel Processing(ICPP 2014)).