

# Hui Zhou

## Résumé

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(000) 000 0000  
XXXXX@XXXXXXXXXXXXXXX  
<http://hzz.org/blog/>  
<https://github.com/hzhou>

## WORK EXPERIENCE

2014 – CURRENT

XXXXXX XXXXXXXXXXX

### *Research contractor*

Develop metrology models for nanoscale critical dimensions. Develop and maintain optical simulation software. Develop and run atomistic simulations for quantum-scale devices.

2007 – 2014

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### *Guest Researcher*

Develop algorithms for microscopic defect detection based on optical imaging and simulations. Develop optical metrology models. Develop simulation software based on FDTD and RCWA algorithm.

2004 – 2006

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### *Research Associate*

Experimental study of Si(111) surfaces. Simulation study of Si etching process using Monte-Carlo algorithm. Develop and maintain data acquisition software, include PID control and data analysis.

1999 – 2004

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### *Research Assistant*

Programming for laboratory data acquisition and analysis.

## REFERENCES

XXXXX XXXXXXX

POSITION Project Leader  
EMPLOYER XXXX  
PHONE (000) 000 0000

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POSITION Group Leader  
EMPLOYER XXXX  
PHONE (000) 000 0000

## EDUCATION

1999 – 2004

**Ph. D.**

Chemical Physics  
XXXX. xx XXXXXXXX

1994 – 1998

**B. S.**

Chemical Physics  
XXXX. xx XXX. xxx XXX

## PROGRAMMING SKILLS

PROFICIENT Perl, C  
EXCELLENT C++, Java, Python, Javascript  
FAMILIAR LISP, Fortran, Pascal  
EXPERT Linux administration

## PORTFOLIO

MYDEF

MyDef is a general-purpose preprocessor that works with multiple programming languages. It provides macros, syntax-customization, code restructure, and generic programming to languages with or without such facilities. As use of MyDef is independent of underlying languages, it provides a separation of syntactic layer from semantic layer to most programming languages.

MYDEF MODULES

Language specific output modules for Perl, C, C++, Java, etc. At plug-in level, syntactic customization and analysis can be easily implemented using Perl script.

FDTD, RCWA, AERIAL

In-house code for solving Maxwell equations and simulating microscope imaging based on Fourier optics. Code available upon inquiry.