Oliver Chang

Curriculum Vitæ

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Education

2012–Present	**Bachelors of Science, Computer Science & Geography**, *University of Miami*, Coral Gables, *3.8 GPA*. Mathematics Minor and Certificate in Geographic Information Systems

Research Experience

2015–Present	**Research Experience for Undergraduates**, *Florida International University*, Miami. ○ Worked collaboratively with two other students to create localization tools based on WiFi and LTE alternatives to GPS ○ Created Android app for training & localization via WiFi using modern best practices like Fragment & DataProvider
2015	**Research Experience for Undergraduates**, *Parallel Computing Institute, University of Illinois, Urbana-Champaign*, Urbana-Champaign. ○ Profiled nek5000, a Fortran MPI fluid dynamics simulator, to evaluate calculation/communication optimizations ○ Pushed scaling limits of nek software against Blue Waters' hardware to achieve a 5% speedup on PGI compilers
2014	**Summer Internship Program**, *Physical Oceanography Distributed Active Archive Center, NASA Jet Propulsion Laboratory*, Pasadena. ○ Consolidated existing metadata checkers for netCDF into a Python framework with verifiable suggestions ○ Lowered cost & difficulty of compliance by creating a RESTful platform over a dependency-heavy local installation

Professional Experience

2014–Present	**Undergraduate Teaching Assistant**, *Computer Science Department, University of Miami*, Coral Gables. ○ Reviewed Java code for Intro to Programming with an emphasis on idiomatic, readable code ○ Challenged small labs of Intro to Data Structures & Algorithms students with visualizations emphasizing edge cases'

2013–2014 **Software Engineering Intern**, *Senzari, Inc.*, Miami.
- Led visualization for a Django dashboard written with Google Charts & CoffeeScript used to track visitor analytics
- Built one of the first FirefoxOS Apps in HTML5/jQuery Mobile to construct graph queries, once rated 4 stars

Publications and Presentations

2015 **Analyzing the Scalability of Nek5000**, *Poster*, Summer Research Poster Session.
Presented in open house to University of Illinois, Urbana-Champaign community

2014 **Improving Compliance for Earth Science Data Records**, *Poster*, Fall Meeting of American Geophysical Union.

2014 **Automating Metadata Compliance Checking**, *Presentation*, Research Presentation Day.
Final Presentation for Jet Propulsion Laboratory Summer Internship Program

2014 **Adventures in Cheminformatics**, *Presentation*, University of Miami Computer Science Department.
Final Presentation for fulfillment of Computer Science Project Planning course

Technical Skills

Basic   Fortran, MPI, Ruby, R, UML Modeling, API Design
Intermediate   JavaScript, C, LaTeX, Unit Testing, SQL
Advanced   Python, Java, Unix, Android Software Development Kit

Honors

Fall 2015   Supported by REU Supplement to NSF Grant CNS-1446570
Summer 2015   Supported by NSF grant CCF-1263145
Spring 2015   Supported by REU Supplement to NSF Grant CNS-1406968
2012   National Merit Scholarship

Service

2015–Present   Vice President for University of Miami (UM) chapter of Association for Computing Machinery

2015   Trained in the Responsible Conduct of Research by the National Center for Professional & Research Ethics

2014–Present   Peer Tutor for UM's Camner Academic Resource Center