Zachary Halle

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School of Computer Science

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Education

Carnegie Mellon University: May 2017
Bachelor of Science in Computer Science
GPA: 3.10/4.00

Work Experience

Carnegie Mellon University, Pittsburgh, PA.
Senior Teaching Assistant for Functional Programming, August 2014 - Present

- Lead lab sections where students practice and reinforce concepts and techniques learned in lecture
- Held office hours where students could bring in their questions about course material and seek help on the homework or clarification of concepts from lecture
- Contributed to writing homeworks, lab handouts, and exam questions

Perceptronics Solutions Inc., Falls Church, VA.
June 2014 - August 2014
Software engineering intern

- Rewrote backend data structures for new Influence Diagram editor application Adonis
- Implemented data serialization using JAXB library with custom serialization techniques
- Wrote persistence service feature to connect to MySQL database programmatically using JDBC driver, allowing us to read and write Java objects to and from a text database

Projects

Ivory Chess Engine: 2014 - Independent summer project for 2014. Ivory is a complete chess application with custom GUI and AI implemented using the minimax algorithm with Alpha-Beta pruning. The source code is in Scala and Java.

Submarine Attack: 2011 - Carnegie Mellon University High School Game Academy. Worked as part of a team to make arcade style 3D submarine game in Unity 3D. Designed and implemented features of the heads-up display including radar in JScript .NET.

Skills

- **Programming languages**: Java, C, C++, Python, OCaml, C#, JavaScript, JScript .NET, Scala, SML
- **Other languages**: LaTeX, JAXB Annotations, MySQL
- **Applications**: Git, Subversion, Eclipse IDE, Unity 3D, Texmaker, MySQL Workbench