## 1 Found Papers of Interest

- 1. A comparison of 7 programming languages: [7]
- 2. A comparison of 4 OO languages: [5]
- 3. A conceptual perspective on comparing OO languages: [6]
- 4. Ada VS Java as a first language for teaching: [2]
- 5. C VS Pascal: [3]
- 6. Comparing OO Languages (Dr. Dobbs): [4]
- 7. Comparing the OO features of Ada VS Java: [1]

## 2 A comparison of Ada and C++

Tang compares Ada and C++[8]. He compares:

- 1. Encapsulation and Abstract Data Types Ada packages VS C++ classes, comparison of overloading capabilities
- 2. Generics, with a mention of the typing discipline of the languages
- 3. Memory management and Garbage Collection, memory leaks
- 4. Inheritance Ada has a primitive form, C++ has full
- 5. Polymorphism and Dynamic Binding Ada has a primitive forms, C++ has full
- 6. Exception Handling similar for both
- 7. Concurrency Ada's are simpler and built in, C++ relies on OS support
- 8. Efficiency brief discussion of design decisions relating to performance
- 9. Reliability Ada is more reliable due to safety features, stronger typing, C++ has C's problems

## 3 Still Looking For

- 1. M. Shaw, G. T. Almes, J. M. Newcomer, B. K. Reid and W. Wulf, "A Comparison of Programming Languages for Software Engineering", Software-Practice and Experience, 11, pp. 1-52 (1981).
  - http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA053562
- 2. H. J. Boom and E. D. Jong, "A Critical Comparison of Several Programming Language Implementations", Software-Practice and Experience, 10, pp. 435-473 (1980).

## References

- [1] Benjamin M. Brosgol. A comparison of the object-oriented features of ada 95 and java. In *TRI-Ada '97: Proceedings of the conference on TRI-Ada '97*, pages 213–229, New York, NY, USA, 1997. ACM.
- [2] Benjamin M. Brosgol. A comparison of ada and java as a foundation teaching language. ACM SIGAda Ada Letters, 18:18–5, 1998.
- [3] Alan R. Feuer and Narain H. Gehani. Comparison of the programming languages c and pascal. *ACM Comput. Surv.*, 14(1):73–92, 1982.
- [4] Michael Floyd. Comparing object-oriented languages.  $Dr.\ Dobb's\ J.$ , 18(11):104–ff., 1993.
- [5] Robert Henderson and B. Zorn. A comparison of object-oriented programming in four modern languages, 1994.
- [6] Bent Bruun Kristensen and Kasper sterbye. A conceptual perspective on the comparison of object-oriented programming languages. SIGPLAN Notices, 31:42–54, 1996.
- [7] Lutz Prechelt. An empirical comparison of seven programming languages. *Computer*, 33(10):23–29, 2000.
- [8] L. S. Tang. A comparison of ada and c++. In TRI-Ada '92: Proceedings of the conference on TRI-Ada '92, pages 338–349, New York, NY, USA, 1992. ACM.