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**Title:**

Combining code structure and semantics for deep software analytics

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**Abstract:**

This project examines combining natural language processing and deep learning for software analytics. Recent years witnessed the significance and advance of machine learning and artificial intelligence especially deep learning in many applications, e.g., Software Engineering as an important engineering area in computer science has attracted increasing interest from ML and Ai researchers. Program code as a specific type of languages, contains rich structure and semantics information, which can help understanding and implementing of software by using latest algorithmic advance in NLP, AI, and deep learning, but yet adequately exploited. This project aims to bridge this research gap by complementing the research expertise of two teams in NLP and SE and extending the existing track records in top AI, NLP, and SE publication outlets.