

## Writeup for the talks of Dr. Chris Brown 9/10

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Dr. Chris Brown is an Assistant Professor of VT joined from 2021. He has completed his MS and PhD from NC State University. Before joining VT, he did internships at RedHat, Blackbaud. He loves music and can play drums. He likes Basketball and Disc golf and is fond of exploring restaurants.

His research interest lies in the field of Software Engineering. The goal of his research is to explore ways to improve the **behavior**, **productivity**, and **decision-making** of software engineers. During the presentation, Dr. Brown described the motivations behind all of the three. He then mentioned some of the problems that software engineers often avoid like avoiding static analysis tools, ignoring Java security practices, avoiding compiler warnings like these. This is also one of his research targets to enable programmers to adopt best practices.

Dr. Brown described prior works as mentioned **Nudge Theory** for this which is a behavioral science framework to improve human behavior without providing incentives or banning alternatives. And he explained this theory with interesting visualizations.

Dr. Brown later talked about his PhD research contributions in which he implemented and developed a conceptual framework for designing effective developer recommendations. Moreover, he developed an automated recommender system that can incorporate the framework to nudge programmers toward developer behaviors. The name of his research group is **Code World**. His group also conducted a set of experiments to explore recommendations to developers and motivate the need for a new approach. Their goal is to produce research that is novel, outward-facing, multi-methodological, collaborative, and practical. He then mentioned **Interdisciplinary Research, Automation & Tools, and Empirical SE** as his research approaches.

The five sorts of areas in which Dr. Brown is currently interested are **Automated SE, Developer Behavior, Dark Patterns, Technical Interviews, and SE Education**. Developer behavior is focused on human-centered behavioral and social aspects of software engineering. Automated software engineering is concerned with developing tools and techniques for automating programming tasks. Dark patterns are deceptive user interface designs that force or trick users into adopting behaviors. Technical interviews and hiring are to improve how software engineers are evaluated and hired for programming jobs. Finally, software engineering education prepares students for careers as future software engineers.

During the seminar, Dr. Brown welcomed any project idea that would fit with the research mission to improve developer behavior, productivity, and decision making and if any students have any idea regarding this he suggested to contact him. Dr. Brown believes we are committed to being a team of diverse, inclusive, and collaborative researchers exploring ways to improve the behavior, productivity, and decision-making of software engineers.

The seminar held by Dr. Brown is very informative and easy to understand. He cleared his research focus and the terms related to his research fields. He also welcomed new ideas from the students that are very impressive. He also clarified the questions of the students attending the seminar.