# CHANDRA SEKHAR MADDILA

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# **EXPERIENCE**

# **SEPTEMBER 2013 - PRESENT**

# **SENIOR RESEARCH ENGINEER, MICROSOFT RESEARCH**

I Work for Applied Sciences group at Microsoft Research. My primary interest areas are Software Engineering, Developer Productivity, and finding interesting applications of Machine Learning and Artificial Intelligence for solving software engineering problems.

#### **JULY 2012 - AUGUST 2013**

# **SOFTWARE ENGINEER, CA TECHNOLOGIES**

part of a research group that builds automation/orchestration products and services. These services enable companies to manage their IT infrastructure and DevOps efficiently by bringing down the total cost of operations.

#### **MAY 2010 - JUNE 2012**

# **RESEARCH ENGINEER, CONVERGYS INFORMATION MANAGEMENT PVT LTD**

Part of Forward R&D team where we explore and develop next gen billing and rating products/services for telecom companies and ISPs. I primarily worked on developing automation, orchestration products and self-deployed & self-managed infrastructure solutions.

# **EDUCATION**

# **DOCTOR OF PHILOSOPHY,** TU-DELFT, THE NETHERLANDS (2020-)

Software Engineering, AI assisted DevOps Expected to graduate in 2022.

# MASTER OF TECHNOLOGY (M. TECH), BITS-PILANI, INDIA (2015-2017)

Software Systems, Data Analytics

# BACHELOR OF TECHNOLOGY (B. TECH), JNTU-KAKINADA, INDIA (2006-2010)

Computer science and Engineering

# **PROJECTS**

Some of the interesting projects I led / worked on (but not limited to) are:

- Sankie
- Project Mélange
- Massively Empowered Classrooms (<u>MEC</u>)

# **PUBLICATIONS**

- 1. Chandra Shekhar Maddila, *Chetan Bansal, Nachiappan Nagappan: Predicting pull request completion time: a case study on large scale cloud services.* <u>ESEC/SIGSOFT FSE 2019</u>
- 2. Ranjita Bhagwan, Rahul Kumar, *Chandra Shekhar Maddila*, Adithya Abraham Philip:
  Orca: Differential Bug Localization in Large-Scale Services. OSDI 2018. Jay Lepreau best paper
  award
  - \*Author names are listed in the order of last names.
- 3. Chandra Shekhar Maddila, Sai Surya Upadrasta, Chetan Bansal, Nachiappan Nagappan, Georgios Gousios, Arie van Deursen:
  - [2011.12468] Nudge: Accelerating Overdue Pull Requests Towards Completion (arxiv.org)
- 4. *Chandra Shekhar Maddila,* Nachiappan Nagappan, Christian Bird, Georgios Gousios, Arie van Deursen:
  - [2101.06542] ConE: A Concurrent Edit Detection Tool for Large ScaleSoftware Development (arxiv.org)
- 5. Nicole Forsgren, Margaret Anne Storey, Chandra Maddila, Thomas Zimmermann, Brian Houck, Jenna Butler:
  - The SPACE of Developer Productivity: There's more to it than you think. Volume 19, January-February 2021}, Association for Computing Machinery (ACM). ACM Queue.
- 6. Rahul Kumar, Chetan Bansal, *Chandra Shekhar Maddila*, Nitin Sharma, Shawn Martelock, Ravi Bhargava: *Building sankie: an AI platform for DevOps.* <u>BotSE@ICSE 2019</u>
- 7. Adithya Abraham Philip, Ranjita Bhagwan, Rahul Kumar, *Chandra Shekhar Maddila*, Nachiappan Nagappan: *FastLane: test minimization for rapidly deployed large-scale online services.* <u>ICSE</u> 2019
- 8. Sumit Asthana, Rahul Kumar, Ranjita Bhagwan, Christian Bird, Chetan Bansal, Chandra Shekhar Maddila, Sonu Mehta, B. Ashok: WhoDo: automating reviewer suggestions at scale. ESEC/SIGSOFT FSE 2019
- 9. Ranjita Bhagwan, Rahul Kumar, *Chandra Shekhar Maddila*, Adithya Abraham Philip:

  Orca: Differential Bug Localization in Large-Scale Services. <u>USENIX Annual Technical Conference</u>
  2019
- 10. Shruti Rijhwani, Royal Sequiera, Monojit Choudhury, Kalika Bali, *Chandra Shekhar Maddila: Estimating Code-Switching on Twitter with a Novel Generalized Word-Level Language Detection Technique.* <u>ACL 2017</u>
- 11. Denae Ford, Margaret-Anne D. Storey, Thomas Zimmermann, Christian Bird, Sonia Jaffe, *Chandra Shekhar Maddila*, Jenna L. Butler, Brian Houck, Nachiappan Nagappan:
  A Tale of Two Cities: Software Developers Working from Home During the COVID-19 Pandemic.
- 12. Nikitha Rao, Chetan Bansal, Subhabrata Mukherjee, Chandra Shekhar Maddila: Product Insights: Analyzing Product Intents in Web Search. CIKM 2020
- 13. Chetan Bansal, Pantazis Deligiannis, Chandra Shekhar Maddila, Nikitha Rao: Studying Ransomware Attacks Using Web Search Logs. SIGIR 2020

# AWARDS, INVITED TALKS, MEDIA, PATENTS

- 1. Winner of *Jay Lepreau best paper award* in USENIX OSDI, for the year 2018. OSDI is one of the prestigious conferences in systems research, in computer science.
- 2. Invited talk on differential bug localization (ORCA) at USENIX Annual technical Conference (ATC). USENIX ATC '19 Orca: Differential Bug Localization in Large-Scale Services YouTube
- 3. Invited talk on AIOps in continuous software engineering. University of Victoria. AIOps in Continuous Software Engineering: A Q&A with Chandra Maddila YouTube
- 4. Featured in prestigious tech magazine VentureBeat. <u>Microsoft's Nudge service leverages AI to speed up completion of pull requests | VentureBeat</u>

- 5. SPACE framework in Business Insider, InfoQ, and GitHub blog. GitHub Creates SPACE Framework for Developer Productivity (businessinsider.com), SPACE, a New Framework to Understand and Measure Developer Productivity (infoq.com), Measuring enterprise developer productivity The GitHub Blog
- 6. Featured in prestigious Microsoft Research Podcast series. Podcast: Can we make better software by using ML and AI techniques? With Chandra Maddila and Chetan Bansal Microsoft Research
- 7. Detecting Misconfiguration and/or Bug (s) in Large Service (s) Using Correlated Change Analysis, USPTO App 16515135

# **SERVICE**

- 1. Program committee, Mining Software Repositories 2021.
- 2. Program committee, SER&IP, International Conference on Software Engineering 2021.
- 3. Reviewer <u>IEEE Transactions on Software Engineering</u> (TSE), <u>Empirical Software Engineering</u> (EMSE)