

James Barnes

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EXPERIENCE	Software Engineering Specialist , Telstra 2023 – present <ul style="list-style-type: none">Developed a novel, declarative, end-to-end, test-automation framework for a large CRM system,Refactored existing test-automation system and associated APIs for ease of development,Translated business requirements into new products and orchestration plans on a large CRM system,Developed billing- and orchestration-related Java Spring Boot APIs Software Engineering Intern , Telstra Summer 2020 – 2021 <ul style="list-style-type: none">Developed new features for the MyTelstra apps,DevOps responsibilities relating to the MyTelstra apps, including deployments,Created quality assurance tests for the MyTelstra app (Android, iOS, web) Head Academic Tutor , The University of Melbourne 2022 <ul style="list-style-type: none">Created assignment, tutorial, and exam material on theoretical computer science,Assisted in the delivery of course materials in a lecture format Academic Tutor & Demonstrator , The University of Melbourne 2019 – present <ul style="list-style-type: none">Tutored content on introductory programming (Python), declarative programming (Haskell, Prolog), and theoretical computer science (DFAs, NFAs, regex, parsing, Turing machines, computability),Delivered tutorial content to postgraduate, first-year & final-year undergraduate students,Graded assignments, projects, and exams of over 1500 students,Developed build tools to automate the creation of teaching materials Data Analyst , WorkSafe Victoria Summer 2019 – 2020 <ul style="list-style-type: none">Developed automated tools to scrape, clean, and validate confidential and public company records
TECHNICAL SKILLS	Java (Maven, Spring, Spring Boot), JavaScript (Node.js), TypeScript, Python (Pytorch, Numpy), C, C++, Haskell, Prolog, Git (GitHub, GitLab), Bamboo, Postman, Cucumber (Gherkin), agile methodologies (JIRA), Salesforce (Apex, Vlocity)
EDUCATION	Master of Computer Science , The University of Melbourne 2020 – 2022 <ul style="list-style-type: none">Grade: First Class Honours (87.800 WAM)Thesis: Higher-Order Programming in Wybe (link)Developed a higher-order extension to an existing language, WybeFormalised the Wybe type systemBenchmarked the performance of the language extension against the existing language, showing negligible performance overhead Bachelor of Science , The University of Melbourne 2017 – 2019 <ul style="list-style-type: none">Grade: First Class Honours (83.000 WAM)Major: Computing and Software SystemsCreated a web-based family heirloom register, allowing for users to upload and share their family heirlooms with other usersProduced formal design documentation
AWARDS	UniHack'21 First Place , Scalr.io (link) 2021 <ul style="list-style-type: none">First-prize winning UniHack'21 submission built with a team of five in 48 hours,Created a low-code platform for users to upload existing machine learning models, automatically creating REST endpoints that serve as an interface to said models,Scalable infrastructure that expands with users' requirementsSimple web-based UI
LANGUAGES	English (<i>native</i>), Mandarin Chinese (<i>basic</i>), Indonesian (<i>basic</i>)
VOLUNTEERING	Student Representative: Master of Computer Science 2022 Student Representative: Distributed Algorithms & Advanced Theoretical Computer Science 2020 – 2021